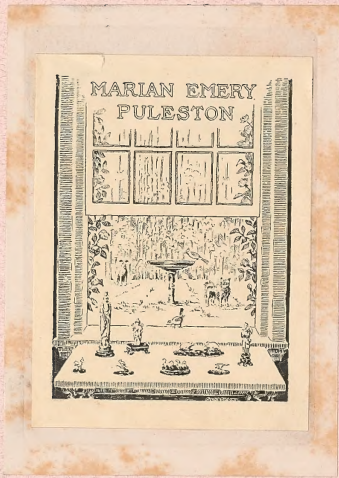




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THE

BIRDS OF EUROPE.

BY

JOHN GOULD, F.L.S., &c.

IN FIVE VOLUMES.

VOL. III.
INSESSORES.

LONDON:

PRINTED BY RICHARD AND JOHN E. TAYLOR, RED LION COURT, FLEET STREET.

PUBLISHED BY THE AUTHOR, 20 BROAD STREET, GOLDEN SQUARE.

1837.

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VOLUME III.

NOTE.—As the arrangement of the Plates during the course of publication was found to be impracticable, the Numbers here given will refer to the Plates when arranged, and the work may be quoted by them.

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* Since the completion of the work Captain S. E. Cook has informed me, that I have made one or two slight mistakes in my account of the Azure-winged Magpie, *Pica cyanea*; and adds that it “is stationary in Spain, and not migratory as thought by M. Wagler. There is also a mistake respecting its inhabiting willows, which are rare in Spain, and not found at all where this bird is most frequent.” It is “common in all the royal parks and chaces in New Castile, but is by far the most numerous in the Sierra Morena, in some parts of which it is so abundant, as to be very destructive in the olive grounds.”

† Named erroneously on the Plate *Picus tridactylus*.

‡ Named erroneously *Sitta rufescens*.



GREAT TIT.
Parus Major; (Linn.)

Drawn from Nature & engraved by J.E. Gould.

Printed by W. Bulmer.

Genus PARUS.

GEN. CHAR. *Bill* strong, short, somewhat conical, slightly compressed, sharp-pointed, and hard. *Nostrils* basal, round, covered with reflected bristly feathers. *Feet* with three toes before and one behind; the fore ones divided to their origin; the hind toe strong and armed with a long hooked claw. *Wings*, the first quill of moderate length or almost obsolete; the second shorter than the third; the fourth and fifth longest.

GREAT TIT.

Parus major, *Linn.*

Le Mésange charbonniere.

THE Great Tit, as its name implies, is one of the largest and most typical of the native examples of the present genus; and it is also certainly one of the most beautiful, from the contrasts of its colours, which are brilliant and decided. In its habits and manners, as well as the places it frequents, it strictly agrees with its congeners. It is distributed throughout the whole of the wooded districts of Europe, being stationary in almost every locality: in the British Islands it is certainly so. In severe winters it often leaves the hedges and fields for the warm thickets, coppices and gardens, and not unfrequently farm-yards, where it becomes bold in its endeavours to obtain a subsistence. Its summer food consists of insects and their larvæ, together with the buds of trees and fruits; to these it adds the scattered crumbs from the cottage-door, of whatever matters they may by chance consist, whether animal or vegetable, its digestive powers being apparently adapted to a great variety.

On the approach of spring it becomes noisy and restless, betaking itself to the top branches of high trees, where it utters its harsh note for the day together: the note greatly resembles the noise made by the filing of a saw, or the creaking of a gate on rusty hinges.

It builds a nest in the holes of decayed trees, in the crevices of walls, often in the deserted nest of a crow, a bed of cow's hair and feathers being the receptacle of the eggs; these vary in number from eight to fifteen, and are of a white colour spotted with reddish brown.

The sexes offer but little difference of plumage, the female having less brilliancy of gloss.

The head, throat, and lower part of the neck glossy black; occiput white; back olive green; rump grey; under parts fine yellow, with a black mesial streak; tarsi bluish grey; bill black.

Our Plate represents the male and female of the natural size.



1. SOMBRE TIT.
Parus lugubris; (Nab.)

2. SIBERIAN TIT.
Parus Sibericus; (Gmel.)

SOMBRE TIT.

Parus lugubris, *Natt.*

Le Mésange lugubre.

WE have figured on the accompanying Plate two species of Tits, nearly allied to each other in form, colour and native locality, neither of which approach the British Islands, nor even the more temperate parts of the European continent. The first is the *Parus lugubris*, a species that may at all times be distinguished by its greater size, exceeding, although but in a small degree, our well-known *P. major*: it is, however, clothed with plumage less gaudy, being entirely devoid of those contrasts of black, white, and yellow, which characterize the plumage of that species.

M. Temminck informs us that the *Parus lugubris* is almost restricted to the European confines of the Asiatic border, and that, although pretty common in Dalmatia, it has never been observed in Austria or any part of Germany. The manners, habits and food of this species we believe to be similar to those of its British congeners; but we have no details to offer respecting them from our own experience, nor has any author to which we have access given any particulars respecting them.

The male and female are alike in plumage, and may be thus described:—The whole of the upper surface of a brownish ash colour, becoming deeper on the top of the head; the secondaries and tail-feathers slightly margined with whitish; throat brownish black; the cheeks and the whole of the under surface white, slightly tinted with brownish grey; beak and feet lead colour.

SIBERIAN TIT.

Parus Sibericus, *Gmel.*

Le Mésange à ceinture blanche.

ALTHOUGH the *Parus Sibericus* has no great attraction as regards beauty of plumage, it has in its shape and general form a more elegant and graceful contour than the *P. lugubris*. In size it is considerably smaller, having at the same time a longer and a graduated tail, offering, though in a slight degree, a relationship to the Long-tailed Tit, so commonly dispersed over Europe; and we have to regret that the extreme rarity of the Siberian Tit, in Europe at least, prevents our ascertaining whether its habits and manners offer any approximation to those of the bird just referred to. M. Temminck, in his *Manuel*, informs us that it is an inhabitant of the most northern parts of Europe and Asia, migrating in winter to some of the provinces of Russia; and we received from Sweden the specimens from which our figures were taken.

The plumage of *Parus Sibericus* may be thus detailed:—The upper surface is of a deep ash colour, tinged on the back with brown; the quills, secondaries and tail-feathers edged with white; throat black; cheeks and upper part of the chest pure white; under parts greyish white, washed with rufous on the flanks; bill and tarsi lead colour.

Our Plate represents these two rare species of the natural size.



TOUPET TIT.
Parus bicolor; (Linn.)

TOUPET TIT.

Parus bicolor, Linn.

La Mésange bicolore.

THERE can be no doubt that the northern regions of America form the true habitat of this species ; we have, however, seen specimens which were undoubtedly killed in Russia, and therefore no longer hesitate in classing it among the occasional visitants of the European continent ; nevertheless it is there extremely rare and is confined to the regions adjacent to the arctic circle. In the works of Wilson and Audubon its manners are described as resembling those of the other members of the genus. “It moves along the branches,” says the latter gentleman, “searches in the chinks, flies to the ends of twigs, and hangs to them by its feet, whilst the bill is engaged in detaching a beech- or hazel-nut, an acorn, or a chinquapin, upon all of which it feeds, removing them to a large branch, where, having secured them in a crevice, it holds them with both feet, and breaks the shell by repeated blows of its bill. . . . It resorts to the margins of brooks to drink, and when unable to do so, obtains water by stooping from the extremity of a twig overhanging the stream ; it appears to prefer this latter method, and is also fond of drinking the drops of rain or dew as they hang at the extremity of the branches.” The same author also informs us that its notes, which are usually loud and mellow, are rather musical than otherwise ; that it is somewhat vicious in its disposition, and occasionally attacks and destroys smaller birds by repeated blows on the head until it breaks the skull.

The nest is constructed of all kinds of warm materials, and is generally placed in the holes formed by the Downy and other species of Woodpecker, but is occasionally placed in a hole dug by the bird itself for that purpose. The eggs, which are from six to eight in number, are of a pure white, with a few red spots at the larger end.

The sexes are so much alike as to be scarcely distinguishable.

Forehead black ; sides of the head brownish black ; all the upper surface uniform grey ; under surface greyish white, tinged with yellowish brown on the flanks ; bill black ; irides dark brown ; feet lead colour.

We have figured an adult of the natural size.



AZURE TIT.
Parus cyanus; (Pull.).

Painted by J. E. Gould.

Engraved by C. Bullen.

AZURE TIT.

Parus cyanus, *Pall.*

Le Mésange azurée.

THIS beautiful little Tit is a native of Siberia, whence it frequently strays into the northern parts of Europe, such as Russia and Poland, and it has been known to penetrate so far south as Germany. Like the rest of its family it dwells in woods and forests, generally in the most retired parts; it is not so much to be wondered at, therefore, that its history is shrouded in obscurity, when we consider how little intercourse naturalists have hitherto had with the remote countries which it inhabits.

Were we allowed to judge from analogy, we might very reasonably conclude that its manners and its disposition are in strict unison with those of its near relative the Blue Tit (*Parus caeruleus*) of England.

For the specimens from which our figures were taken, and which we believe to be the only examples in England, we are indebted to the liberality of the directors of the Royal Museum of Berlin.

Like the rest of its race, the sexes of the Azure Tit offer little or no difference in the colouring of the plumage.

Nothing is at present known respecting its nest or eggs.

The forehead, throat, and breast are white; a band of deep blue extends from the eye round the back part of the head; the back and rump are fine blue grey; the tail-feathers fine deep blue with white tips, and the outer one on each side wholly white; the wings deep blue, the secondaries largely tipped with white; a band of the same colour crosses near the shoulders; primaries grey, brown on their inner webs and white on the outer; feet and bill lead colour.

The Plate represents a male and female, of the natural size.



BLUE TIT.
Parus ceruleus (Linn.)

BLUE TIT.

Parus cœruleus, Linn.

La Mesange bleue.

Few birds can be more familiar to our readers than the Blue Tit, the habits and manners of which every one must have repeatedly noticed, since of all the species it is the most common in our gardens and around the precincts of our habitations, and it is exceeded by none in its sprightly actions and in the address and activity with which it searches the extremities and shoots of trees in quest of its insect food. The mischief it does to the tender buds of trees, in stripping off their envelopes, has rendered it very obnoxious to the gardener, although doubtless the benefit it confers by the destruction of insects more than compensates for the injury. Like the rest of the British Tits, it is a permanent resident in our island, braving the severity of our hardest winters, against which it is peculiarly defended by the full downy plumage which invests the whole of the body. On the approach of spring its simple note may be heard in our woods and gardens, which is a true sign that its pairing-season has already commenced, and that the mated birds are preparing for the task of incubation. The situation chosen for the nest varies according to circumstances; most frequently it is in the hole of a tree, the chinks of a wall, and even the interstices of old posts or palings; it is generally constructed of moss lined with feathers and hair: the eggs are white, speckled with dark red.

The young assume the colouring of the adults at an early age, and quickly follow their parents in their assiduous search after insects and their larvæ. The family group keep united until autumn at least, when they all separate, going in winter in single pairs, or passing the colder months singly or in company with other small birds.

The sexes are so closely alike in colouring as to offer no decided difference; the tints of a male are, perhaps, somewhat the brightest.

On the Continent they are widely distributed, and exhibit the same habits and manners that they are observed to do in the British Islands.

The top of the head is fine cœrulean blue; the forehead, stripe over the eye, and cheeks white; a black stripe passes from the bill, through the eye and surrounds the white of the cheeks; the upper surface is delicate olive green; the wings and tail blue, the secondaries being slightly tipped with white, and the primaries dark brown; the whole of the under surface yellowish green; tarsi and bill blueish lead colour.

The Plate represents a male and female of the natural size.



1. COLE TIT.
Parus ater, (*Linn.*)

2. MARSH TIT.
Parus palustris, (*Linn.*)

COLE TIT.

Parus ater, *Linn.*

La Mésange petit charbonnière.

THE Cole Tit appears to give a preference to woods of birch, oak, and pine, in hilly and mountain districts; nevertheless, it frequents, in tolerable abundance, hedgerows, shrubberies, and gardens, over nearly every portion of Europe.

In its habits and manners it is remarkably quick and active, searching with great assiduity among the twigs and buds of trees for insects and their larvæ, upon which it feeds, while every action is animated and sprightly. It braves with indifference not only our severest winters, but even those of the northern portion of the Continent. Its nest is placed indifferently according to circumstances, being sometimes formed in the hole of a decayed tree or old wall, and at others on the ground: it is composed of moss and wool, generally lined with hair. The eggs are from six to ten in number, of a pure white, sparingly dotted with reddish brown.

The sexes offer little or no difference in their plumage, and the young assume at an early period the colouring of maturity.

The top and sides of the head are black; a white mark occupies the occiput; throat black; sides of the face white; upper surface grey, with a slight tinge of brown; wings and tail brownish black, the former having two transverse bands of white; flanks and under-surface white slightly tinged with rusty brown; bill black; tarsi lead-colour; irides hazel.

MARSH TIT.

Parus palustris, *Linn.*

La Mésange nonnette.

THE Marsh Tit is slightly superior to the Cole Tit in size, and differs from it also in the situations it frequents, giving the preference to low tracts of land, covered with thickets, in the neighbourhood of swamps and marshes; it is also found in orchards, gardens, and similar localities. It appears to be more abundant in Holland than in any other country; it is, however, very generally spread, and is found in very high northern latitudes. In England it is as equally diffused as the rest of the genus, and is as active and sprightly in its habits, prying in search of food with the same dexterity and adroitness. It constructs its nest in the holes of trees, and lays from ten to twelve eggs, of a white colour, dotted with reddish brown spots. It may be observed that the Marsh Tit and the Cole Tit often associate together during winter, and it not unfrequently happens that the Crested Wren and other small birds join their company.

The sexes offer no distinction, except that the colours of the female are more obscure.

In the male the top of the head and back of the neck are deep black; the upper surface, wings, and tail are greyish brown, the latter being somewhat the darkest; breast black; cheeks and throat white; the under surface white, clouded with dusky brown; bill black; legs lead-colour; irides dark hazel.

The upper bird in our Plate represents the Cole Tit, the lower the Marsh Tit, both of the natural size.



CRESTED TIT.
Parus cristatus; (Linn.).

CRESTED TIT.

Parus cristatus, *Linn.*

La Mesange huppée.

IN our attempts to discover this interesting species of Tit in this country we have been unfortunately disappointed, notwithstanding every work which has hitherto been published on British Ornithology has enumerated it as one of our indigenous birds. In his work on British Birds, Mr. Selby states that he has been informed by Sir W. Jardine that the Crested Tit has been found in some plantations near Glasgow, where it annually breeds. Upon the testimony of this distinguished naturalist, we feel ourselves bound to agree in the propriety of its admission into the list of our native Fauna, hoping that at no distant day we shall receive further information on the subject. Rare as it is with us, it is very common in some parts of Europe, being abundant in the pine forests of all its northern regions, and especially where juniper trees are plentiful. M. Temminck, however, assures us that it is scarce in Holland: we know it to be common in Germany, France, and the Alpine regions.

In habits and manners it resembles the rest of the smaller Tits, feeding on insects, berries, and the seeds of evergreens.

M. Temminck says it builds its nest in the holes of trees or walls, or in the abandoned dreys of Squirrels and Pies. The eggs are as many as ten in number, of a white colour, marked on the larger end with spots of blood red.

The sexes offer no external difference in plumage.

The head is furnished with a beautiful crest, capable of erection, consisting of long white feathers, having their centres black; the cheeks and sides of the neck white, bounded before by a band, which passes from the throat to the sides of the neck, and behind by a similar band passing from the back of the head in the same direction; the ear-coverts are also bounded by a narrow line of black; the general plumage above is delicate brown, and below white, slightly tinged with brown.

The Plate represents a male of the natural size.



LONG-TAILED TIT.
Parus caudatus, (Linn.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Bulmer.

LONG-TAILED TIT.

Parus caudatus, *Linn.*

Le Mésange à longue queue.

INDEPENDENTLY of the deviation from the form of the rest of the genus which this little Tit exhibits, its habits, mode of nidification, and food, also tend to place it in an isolated situation, and it is questionable whether it might not be with justice considered as the type of a new and distinct genus.

Few persons who have been accustomed to observe the habits of our native birds can have failed to be struck with the peculiar actions of this bird, which is continually wandering from tree to tree and hedgerow to hedgerow, diligently traversing every branch in quest of insects and their larvæ, which constitute almost its sole food : these peregrinations appear to be repeated day after day over a given circuit, and it often happens that at the same hour, on several successive days, they may be found at the same place ; during the breeding and summer seasons there is, however, an exception to this general rule, which leads us to suspect that these wandering parties consist of the broods of single nests which continue to associate together till the following summer causes them to separate into pairs for the purpose of breeding. Noted as birds of this genus are for their active and restless habits, the Long-tailed Tit is conspicuous among them as being the most agile and expert ; clinging in every possible attitude to the branches with the utmost ease, and prying into every bud and crevice, even along the under sides of the twigs, with the strictest scrutiny.

Among the nests of our British birds, that of the Long-tailed Tit is pre-eminent for beauty and the ingenuity displayed in its structure : in form it is oval, and domed over at the top, and is generally fixed in the forked branches of a low tree or tall bush in a dense hedgerow ; it is composed externally of moss, lichen, fibres, and wool, admirably interwoven together, and is lined internally with feathers : in this secure and warm receptacle, the female lays her eggs to the number of twelve or twenty, white in their colour, with obscure reddish spots at the larger end.

Though not a songster, this interesting bird utters during the season of love a few simple, twittering notes ; but these cease with the summer, a chirping call being its only note during the rest of the year. Its flight from tree to tree is tolerably rapid, but cannot be maintained for any distance.

The top of the head is white ; a black mark passes through each eye to the occiput, and joining there with that of the opposite side, runs in a broad streak down the back, passing off at the edges into a rose red, which is the tint of the upper surface ; the quills are black ; the secondaries edged with white ; cheeks and throat greyish white, under parts pinky grey ; tail long and graduated, the four middle feathers black, the two next tipped with white, the rest with the outer webs white also ; beak and tarsi black.

The female does not differ from her mate in colouring.

We have figured a pair of the natural size.



BEARDED TIT.

Parus biarmicus, (Linn.)
Calamophilus———, (Leach).

Genus CALAMOPHILUS, *Leach*.

GEN. CHAR. *Beak* nearly as in the genus *Parus*, but the upper *mandible* at its tip is somewhat curved. *Tail* elongated, wedge-shaped. *Legs* very slender.

BEARDED TIT OR REED BIRD.

Calamophilus biarmicus, *Leach*.

La Mesange moustache.

DR. LEACH was induced to separate this very interesting and elegant bird from the genus *Parus*, in consequence of its differing in several minor characters from the other species of that genus, particularly in the situation it affects as a place of abode and nidification; constructing a nest on or near the ground in wet and marshy places: its food is also very different, consisting of the seeds of reeds, with aquatic insects and minute shelled-snails, for the trituration of which it is furnished with a strong muscular gizzard. It inhabits England as well as most of the temperate countries of Europe, but is more particularly abundant in the low and marshy districts of Holland, France and Germany. Its disposition is timid, and its manners shy and retired, dwelling in situations both local and difficult of access; a circumstance which, until lately, has prevented naturalists from giving any minute details respecting its peculiar habits. We are indebted to Mr. Hoy, an intelligent observer of nature, for the best account of this bird yet published, from which, as given in "The Magazine of Natural History," vol. 3. p. 328, we take the liberty of making the following extract.

"The borders," says Mr. Hoy, "of the large pieces of fresh water in Norfolk called Broads, particularly Hickling and Horsey Broads, are the favourite places of resort of this bird; indeed it is to be met with in that neighbourhood wherever there are reeds in any quantity, with fenny land adjoining. During the autumn and winter they are found dispersed, generally in small parties, throughout the whole length of the Suffolk coast, wherever there are large tracts of reeds. I have found them numerous, in the breeding season, on the skirts of Whittlesea, near Huntingdonshire, and they are not uncommon in the fenny district of Lincolnshire; whether they are to be met with further north I have had no means of ascertaining, but they do not appear to have been noticed north of the Humber. It begins building in the end of April. The nest is composed on the outside of the dead leaves of the reed and sedge intermixed with a few pieces of grass, and invariably lined with the top of the reed, somewhat in the manner of the nest of the Reed Wren (*S. arundinacea*, L.), but not so compact in the interior. It is generally placed in a tuft of coarse grass or rushes near the ground, on the margin of the dikes, in the fen; sometimes fixed among the reeds that are broken down, but never suspended between the stems. The eggs vary in number from four to six, rarely seven, pure white, sprinkled all over with small purplish red spots, intermixed with a few small faint lines and markings of the same colour; size about the same as that of the Greater Tit, but much more rounded and shorter. Their food during the winter is principally the seed of the reed; and so intent are they in searching for it, that I have taken them with a birdlime twig attached to the end of a fishing-rod. When alarmed by any sudden noise, or the passing of a hawk, they utter their shrill musical notes and conceal themselves among the thick bottom of the reeds, but soon resume their station, climbing the upright stems with the greatest facility. Their manners in feeding approach near to the Long-tailed Tit, often hanging with the head downwards, and occasionally assuming the most beautiful attitudes. Their food is not entirely the reed-seed, but insects and their larvæ, and the very young shelled-snails of different kinds, which are numerous in the bottom of the reedlings. I have been enabled to watch their motions when in search of insects, having, when there has been a little wind stirring, been often within a few feet of them, quite unnoticed, among the thick reeds. Was it not for their note betraying them, they would be but seldom seen. The young, until the autumn moult, vary in plumage from the old birds; a stripe of blackish feathers extends from the hind part of the neck to the rump. It has been said that the males and females keep separate during the winter; but I have always observed them in company; they appear to keep in families until the pairing time, in the manner of the Long-tailed Tit; differing in this respect, that you will occasionally find them congregated in large flocks, more particularly during the month of October, when they are migrating from their breeding-places."

To this interesting account we may add, that they are to be met with occasionally on the banks of the Thames, from the thick reed-beds of Erith in Kent throughout the course of the river to Oxford; but their visits are by no means regular, or to be calculated on with certainty.

The total length of the male Bearded Tit is about six inches; the beak orange, the upper mandible longer and overhanging the under; irides yellow; feet black; crown of the head, nape, and cheeks delicate ash colour; between the base of the beak and the eyes is a black mark, which proceeds down the side of each cheek, and terminates in a fine and lengthened moustache; throat white; breast vinous grey; the sides of the breast, the back, and the four middle tail-feathers fine reddish orange; primaries brown externally, edged with white; secondaries the same colour as the back, with a black longitudinal stripe; vent black; tail graduated, and about three inches in length.

The female is rather less than the male, of a more uniform ferruginous colour, with a few dashes of black on the upper part of the neck and back, and has a faint yellowish white instead of a black moustache.

We have figured a male and female of the natural size.



PENDULINE TIT.
Aegithalus pendulinus; (Boje).

Drawn from Nature & on Stone by J. A. E. Gould.

Printed by C. Bullock.

Genus *ÆGITALUS*, *Boje*.

GEN. CHAR. *Beak* moderate, very acute, the upper mandible straight, middle toe free from the base : hind claw large and strong. *Tail* truncate and moderate.

PENDULINE TIT.

Ægitalus pendulinus, *Boje*.

Le Mésange rémiz.

WE quite agree with M. Boje in the propriety of assigning this elegant little bird to a separate genus, distinguished by several minute particulars from that of *Parus*. In habits, manners, and the localities it frequents, it bears a great resemblance to the Bearded Tit (*Calamophilus biarmicus*, Leach); but in the form of its beak and tail, and in its mode of nidification, it not only differs from it, but also from every other species of the family. In this little bird, whether we regard its elegant hanging nest or its chaste plumage and sprightly form, there is much to attract attention: it is not, however, among the natives of our island, but must be sought for in the southern and eastern provinces of Europe. It is tolerably abundant in Italy and the South of France, and is also found in some parts of Russia, Poland, and Hungary, everywhere frequenting the borders of rivers and inland sheets of fresh water, where willows, reeds, and luxuriant herbage afford it shelter. Its food is said to consist, like that of the Bearded Tit, not only of seeds, but also of aquatic insects, and the animals inhabiting small freshwater shells.

Proverbial as are the Tits for the beauty and skilful structure of their nests, none are more remarkable and curious than that of the present species: it is constructed of the soft down of the willow or poplar; and this substance, which closely resembles cotton wool, is interwoven together with admirable ingenuity, so as to form a flask-shaped nest, with a lateral opening into the internal chamber. It is suspended at the extremity of a drooping branch of a willow or any similar tree overhanging the water. The eggs are six in number, of a pure white, marked with a few red blotches.

The sexes in the adult state offer but little difference in the colour of their plumage; the markings of the female, particularly the black band across the face, are however more obscure, and the young, besides being of a lighter colour, want the black mark entirely.

The plumage of the adult male is as follows: a black band extends across the forehead, encircles the eyes, and spreads over the ear-coverts; top of the head light grey; throat lighter; the upper surface chestnut brown, more intense on the middle of the back, fading off to buff; breast chestnut, becoming lighter as it spreads over the abdomen; wings and tail brownish black, each feather having a lighter margin.

Our Plate represents a pair of these birds, and their nest, of the natural size.



WAXEN CHATTERER.
Bombycivora garrula, (Temm.^k)

Genus BOMBYCIVORA, *Temm.*

GEN. CHAR. *Beak* short, straight, elevated, the upper *mandible* slightly curved towards its extremity and furnished with a very marked tooth. *Nostrils* basal, ovoid, open, concealed by short stiff hairs directed forward. *Toes*, three before and one behind, the external and middle toes united. *Wings* moderate, the first and second *quill-feathers* equal and longest.

WAXEN CHATTERER.

Bombycivora garrula, *Temm.*

Le Grand Jaseur.

THE birds composing the genus *Bombycivora*, as restricted by M. Temminck, are by no means numerous, three species only having as yet, we believe, been discovered. The present beautiful example, which is the largest, and may be considered the most typical of the genus, is the only one Europe affords us; it is also to be found in the northern regions of America, although much less common than the smaller allied species peculiar to that Continent. The rare and uncertain visits of the Waxen Chatterer to our Island afford us but little insight into its history, as it is in winter only that small flocks now and then appear, driven probably by the severity of the season in northern climes to a more southern retreat.

Its true habitat appears to be the regions of the arctic circle, whence it emigrates to the adjacent districts both of Asia and Europe. Dr. Latham informs us that it is plentiful both at St. Petersburg and Moscow in the winter, but is observed to come there from parts further north, and to depart again to the arctic circle in spring. It is never known to breed in Russia, is scarce in Siberia, has not been found beyond the Lena, and is mentioned as a Tartarian bird by Frisch, who says it breeds among the rocks; and nothing more, we believe, is known respecting its habits and nidification. The formation and general structure of its beak indicate it to be a true berry-feeder, and we accordingly find that during its visits here its food consists of the berries of the mountain ash, the haw, the privet, &c.

The general colour of the body of the male bird is of a dull vinous ash, with a bright ferruginous tinge on the forehead and cheeks; the feathers of the head prolonged into a beautiful crest; beak and tarsi black; the throat, the feathers of the nostrils, and a band which passes from the beak through the eye, black; primary quill-feathers brownish-black, each feather being marked on the inner margin of the tip with a yellow line; secondaries tipped with white and having the shaft prolonged and furnished with singular appendages resembling red sealing-wax, whence its name; upper tail-coverts ash-coloured, the under ones ferruginous; tail black tipped with a yellow band.

The male and female offer but slight external differences, both having the wax-like appendages to the secondaries; they are, however, less numerous in the female, and are altogether wanting in the young.

Our Plate represents a male in the adult plumage and of the natural size.



BLACK LARK.
Alauda Tartarica, (Pall.)

From a specimen in the collection of J. E. Gould.

Printed by C. Hollensted.

Genus ALAUDA, *Linn.*

GEN. CHAR. *Bill* subconic, short, the mandibles of equal length, the upper one slightly convex. *Nostrils* basal, lateral, oval, partly concealed by small reflected feathers. *Feet*, three toes before, and one behind; the anterior ones entirely divided; the claw of the hind one long and nearly straight. *Wings*, the first quill very short, or wanting, the third the longest; tertials in most instances shorter than the quills. Coronal feathers generally produced, and capable of being erected.

BLACK AND WHITE LARK.

Alauda Tartarica, *Pall.*

L'Alouette Nègre.

THE *Alauda Tartarica* is a native of the high northern regions of the old continent, where it enjoys a most extensive habitat, being dispersed, as we have every reason to believe, over the whole of Siberia, Northern Russia, Lapland, &c., and from whence it performs periodical migrations into more temperate climes. It spreads in autumn, says M. Temminck, over the provinces of European Russia, where it dwells in small companies; hence it is necessary to include it in the fauna of Europe. Like *Plectrophanes nivalis* and *Lapponica* it is subject to very considerable and contrasted changes in the colouring of its plumage at opposite seasons: during the rigorous months of winter its clothing is remarkably thick and warm; the feathers, which are then elongated, are encircled with a band of light tawny grey, and falling closely over each other, conceal the black colouring of the base of each feather. On the approach of summer a decomposition takes place in the lighter portions of the feathers, which gradually break off, and leave the bird in the height of summer of a jet black, which style of dress continues until the autumn, when a moult takes place, and the bird again assumes its usual winter clothing. The lower figure in our Plate represents the bird in the winter dress, while the upper illustrates the nearly completed plumage of summer, when, as will be readily perceived, many of the feathers possess the remains of the winter plumage.

The *Alauda Tartarica* is a bird of great rarity in the collections of Europe; and independent of our own specimen, which we received from Paris, we know of no other example in England.

The only difference in the outward appearance of the sexes consists in the hues of the female being somewhat less deep, and in her being rather smaller in size than her mate.

We cannot examine this and the following species, *Alauda Calandra*, without being fully impressed with the propriety of separating them into a new genus, distinct from *Alauda*, which genus is typically represented by

Arcensis; but having already figured one species which according to our ideas would range in this division under the name of *Alauda brachydactyla*, we have considered it best, in these instances also, to retain the old generic title *Alauda*.

After what has been said above we conceive any further description of the plumage will be unnecessary: the beak is yellowish buff at the base and black at the tip; the feet and legs are black.

The figures are of the natural size.



CALANDRA LARK.
Alauda Calandra: (Linn.)

Drawn from Nature & coloured by J. E. Gould.

Printed by G. Bellin and Co.

CALANDRA LARK.

Alauda Calandra, *Pall.*

L'Alouette Calandre.

IN its general form, robust body, and powerful bill, this bird very closely resembles the *Alauda Tartarica*; the countries, however, to which these birds resort are widely different, the *Alauda Tartarica* being almost confined to the high northern regions, while the range of the *Alauda Calandra* extends nearly to the tropics: it is very abundant in Northern Africa, and is common in Spain, Turkey, Italy, and the South of France, to the north of which countries it is seldom seen. We have little to communicate respecting its habits and manners, in all of which we believe it bears a striking resemblance to the Common Lark, *Alauda arvensis*.

It constructs its nest among the herbage, and lays four or five eggs, of a clear purple marked with large grey spots.

Its food consists of insects, seeds, &c.

The sexes are only to be distinguished by the female being rather less in size, and by the black markings on the sides of the neck being less developed.

The young, as will be seen, exhibit the usual characteristics of the genus, having the tips of all the feathers margined with yellowish grey.

The upper surface is of a sandy grey, the centre of each feather being dark brown; quills dark brown edged with whitish; throat white bordered by a black lunulated stripe, beneath which the feathers are dirty white varied with black; belly white; flanks and thighs brown; the outer tail-feather on each side white on the outer web and tipped with white, the third edged with grey and tipped with white, the fourth tipped with grey, the remainder of the tail black; bill pale horn colour; legs pale grey.

The Plate represents an adult male, and a young bird of the year, both of the natural size.



SHORT-TOED LARK.
Alauda brachydactyla, (Timm.)

Drawn from Nature & constructed by J. E. Gould.

Printed by C. Hollensted.

SHORT-TOED LARK.

Alauda brachydactyla, Temm.

L'Alouette à doigts courts.

THIS species, like *Alauda Calandra* and *Alauda Tartarica*, is distinguished by the more powerful and robust form of the bill, and by the comparative shortness of the toes, circumstances which, as we have already observed, would appear to constitute the characters of a minor group of the Larks ; in neither, however, are the toes so much abbreviated as in the present instance. The members of this group would appear to be widely distributed, the largest of the genus, *Alauda Tartarica*, being a native of high northern latitudes, while the delicate species here figured makes the southern regions of Europe, and the adjacent portions of Africa, its permanent habitat. It is said to abound on the hot sandy plains of the Spanish Peninsula, and that it is no less abundant in Sicily and in some portions of Italy ; in fact it is found along the whole of the borders of the Mediterranean. It occurs occasionally in the South of France, but this appears to be the boundary of its range northwards.

Its nest is constructed on the ground like that of the Sky Lark, and the eggs are five in number, of an isabelle yellow, without any markings.

The sexes are not distinguishable by the colouring of their plumage ; the tints of the female are, however, somewhat duller than those of the male. The young during the first autumn have the outer edges of each feather margined with buff.

The male has the top of the head and all the upper parts of a yellowish or sandy brown, with the centre of each feather darker ; the quills and tail of a dusky brown, the two outer feathers of the latter having their external edges yellowish white ; a whitish yellow streak over each eye ; throat and belly white, the chest and flanks being tinged with yellowish brown ; bill and feet light brown.

The Plate represents a male and female of the natural size.



SHORE LARK.
Alauda alpestris; (Linn.)

SHORE LARK.

Alauda alpestris, *Linn.*

L'Alouette à hausse col noir.

THIS beautiful and singular species of Lark has lately made its appearance in Britain, and some of our museums, as well as private collections, can boast of possessing species obtained in our own country: it may, however, be considered as strictly a northern species, inhabiting the higher latitudes of Europe, Asia and America, in which latter portion of the globe it especially abounds. Wilson informs us that it is one of the summer birds of passage of that continent, arriving in the North in the fall, and usually staying the whole of the winter: it frequents sandy plains and open downs, and is numerous in the Southern States as far as Georgia. During that season they fly high, in loose scattered flocks, and at these times have a single cry, almost like the Skylark of Britain. It is, however, not improbable that this species is spread over the whole of the American continents; at least we have received it from the Straits of Magellan, where it was found by Captain King. M. Temminck states that it appears as a bird of passage in Germany, and never ventures into the southern continental provinces. The regions of the polar circle appear to be its native habitat; it also incubates and rears its young in the marshy and woody districts of the eastern portions of the fur countries of North America, according to Dr. Richardson, who quotes Mr. Hutchins as his authority for stating that its nest is placed on the ground, and that it lays four or five white eggs spotted with black. On the advance of winter, it retreats to the southwards, and is common in the United States throughout that season.

It appears to frequent wild and barren districts adjacent to the shore, situations in which it particularly delights, and more especially sandy elevations covered with scanty tufts of herbage, never perching on trees, but gaining its subsistence from the seeds of grasses and the shoots and buds of dwarf shrubs.

The male and female of this beautiful species differ in the brilliancy of the plumage. In the male, the whole of the upper surface is of a vinous ash colour, each feather having a central wash of brown; the forehead is yellow, whence a slender stripe passes over the eye; above the yellow of the forehead a broad patch of black extends across the head, terminating above each eye in a tuft of elongated black feathers, like the egrets of some of the *Strigideæ*, capable of being elevated or depressed at pleasure; from the base of the bill extends a black mark, which covers the cheeks; throat and sides of the neck yellow, succeeded by a black gorget; sides vinous ash, becoming whitish on the under surface; the two middle tail-feathers brown, the rest black, the edge of the outermost being white; bill brown; tarsi black.

In the female, the black band on the head and the egrets are not very apparent, the yellow is circumscribed and dull, and the gorget small, in which respect the young are similar.

We have figured a male and female of the natural size.



CRESTED LARK.
Alauda cristata, (Linn.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

CRESTED LARK.

Alauda cristata, *Linn.*

L'Alouette à hausse-col noir.

ALTHOUGH the Crested Lark is abundantly distributed over the temperate and warmer portions of the Continent, no instance of its having been killed in the British Islands is, as far as we are aware, on record; this is the more singular, as, from the circumstance of its extending its range to many parts of the coast which are opposite our own, and from its being particularly common in the fields and plains round Calais, it might pass and repass to Dover at will. Our personal observation of this bird while on the Continent leads us to regard it as a much more solitary bird than the Skylark, to which in its general aspect it bears a close resemblance. The Crested Lark is said to congregate in flocks occasionally; but when we observed them they were scattered over the country in pairs, very frequently in the vicinity of the main roads. They may readily be distinguished from their near ally by the crest, which in the male is generally erect; they are also said to perch on trees.

The Crested Lark frequently sings as it flies, sometimes soaring to a great height: its song is varied, although we consider it to be inferior to the well-known songster that enlivens the spring-time in our islands with its cheerful and voluminous notes.

As we have before stated, its range on the Continent is very general, and M. Temminck relates that it is sometimes found pretty far north, although in no great numbers: to these localities we may add that it is an inhabitant of the northern portions of Africa, the whole of Asia Minor, and the high lands of India.

The female is less than the male, and has not so long a crest. It is said to build early, constructing a nest on the ground somewhat like that of the Skylark: the eggs, four or five in number, are of a pale ashy brown spotted with dark brown.

The head, and all the upper surface, wings, and tail, reddish brown with darker centres; stripe above and beneath the eye, throat, belly, under tail-coverts, and the outer tail-feathers, white; sides of the face and breast white, numerous spotted with dark brown, and tinged with reddish, the spots on the latter disposed in the form of a crescent; upper mandible dark brown; under mandible light brown at the base, and dark brown at the tip; legs pale brown.

We have figured a male and female of the natural size.



SKY LARK.
Alauda arvensis; (Linn.)

Drawn from Nature & on Stone by J. & E. Gould

Printed by C. Hullmandel

SKY LARK.

Alauda arvensis, Linn.

L'Alouette des champs.

THIS well-known bird, with whose brilliant and varied song we are all so intimately acquainted, is not only common in our own island, but is equally abundant over the greater portion of Europe and the adjacent parts of Asia and Africa. In spring and summer it lives in pairs, but is gregarious during winter; associating towards the close of autumn in vast flocks, which are joined by migratory visitants from more northern districts, and if the winter be severe they all progress to the warmer latitudes of Europe and of Africa.

The Sky Lark pairs early in the spring, and during the season of incubation the song of the male, almost always uttered in the air, often at a considerable elevation, is peculiarly fine and melodious; and when, as is sometimes the case, several are heard in concert, the effect of their mingled tones is exceedingly gratifying, and the more so as they are an earnest of a reviving spring, which one might almost fancy they are welcoming with songs of rejoicing. While her mate is thus engaged the female is occupied on the ground, either preparing her nest or listening to his strains of adulation. In the early part of the season, while the pairing takes place, the males may be observed chasing each other, and exhibiting considerable pugnacity of disposition. As soon as the young are hatched the most assiduous attention is paid to them by their parents, and so deeply are they engrossed in this duty, that the song of the male is less frequently heard, and all the actions of both parents are far less sprightly and animated.

The flight of the Sky Lark is vigorous, and the bird is capable both of sweeping along with immense rapidity, or of sustaining itself in the air at almost any height for a considerable length of time; in the latter case, and while pouring forth its song, the wings have a peculiar vibratory motion.

Its food consists of grain, trefoil, and insects.

The only external difference in the sexes is, that the female is less brilliant in her markings, and has a shorter crest; she is moreover somewhat less in size, and the hind claw is shorter.

The young previously to the first moult are distinguished by all the feathers being edged with light yellowish grey.

The adult male has the bill brownish black; the general plumage yellowish brown, each feather with a darker central mark; a pale streak of yellowish white over the eye; the neck and breast pale brown spotted with brown of a darker tint; the tail brown, the outer feathers having the tip and the exterior web white, and the next with the outer web only white; the centre of the belly white, and the feet and claws light brown.

We have figured an adult male and a young bird of the natural size.



WOOD LARK.
Alauda arborea, (Linn.)

Drawn from Nature & coloured by J. E. Gould.

Printed by C. Holliman del.

WOOD LARK.

Alauda arborea, *Linn.*

L'Alouette Lulu.

THE Wood Lark is a far less abundant species than the Sky Lark, from which it differs materially in its habits and manners. Its range over the continent of Europe is very general, but in our own island it appears to be most numerous in the southern counties, being, according to Montagu, most common in Devonshire. It gives preference to open fields bordering woods, or extensive plantations where large trees are dispersed abundantly, upon which, unlike its near ally, it is fond of perching, and from whence it pours forth its melodious strains, which, although full of sweetness, are less brilliant and varied than that of the Sky Lark. Its powers of flight are very considerable, and while on the wing it often utters a short and peculiar piping cry. It is strictly migratory, departing from our shores rather late in autumn, and returning in the month of April.

The sexes are alike in plumage: the young have all the feathers bordered with yellowish white, and their general tints more tawny than those of the adults.

The nest is said to be placed on the ground, generally under the covert of some tuft or shrub; the eggs wood brown, blotched with grey and darker brown.

Bill brownish black; above the eye is a conspicuous fawn-coloured stripe; all the upper surface buff brown, each feather having a black central mark; under surface yellowish white spotted upon the neck and chest with dark brown; wing-coverts tipped with white; two middle tail-feathers brown, the remainder brown tipped with white; legs pale brown.

The Plate represents a male of the natural size.



BIFASCIATED LARK.

Certhilauda bifasciata

Alauda bifasciata, (*Licht*)

Drawn from Nature & on Stone by J. E. C.

Printed by C. Hollander.

Genus CETHILAUDA, Swains.

GEN. CHAR. *Bill* moderate, slender, curved. *Nostrils* roundish. *Wings* with first quill extremely short or nearly spurious; second very long; third, fourth, and fifth nearly equal and the longest. *Tail* rather short, even. *Feet* moderate; nail of the hind toe short and straight.

BIFASCIATED LARK.

Certhilauda bifasciata.

Alauda bifasciata, *Licht*

L'Alouette bifasciée.

In the third part of his 'Manuel,' M. Temminck describes this rare species of Lark as an occasional visitant to the eastern and southern parts of Europe, it having been killed both in Sicily and Provence. It would appear to be very common on the banks of the Nile, from whence we have received specimens, and it is also plentiful in Abyssinia. It differs much in its structure from the members of the genus *Alauda*, and if we mistake not, will rank with the bird characterized by Mr. Swainson under the name of *Certhilauda*, and as such we have figured it. Taking the common Sky Lark of our island as the type of the genus *Alauda*, this will be found to exhibit many points of difference, particularly in the elongated and curved form of the bill, and in the comparative shortness of the toes and nails; and although we have not been made acquainted with its habits and manners, we feel confident that they differ considerably from those of the *Alauda arvensis* and its immediate congeners, and that Mr. Swainson's views in separating it into a distinct genus will be fully substantiated.

Of its food and nidification nothing is known.

The sexes are alike in plumage and may be thus described:

The whole of the head, back of the neck, scapularies, and upper tail-coverts pale greyish brown; wing-coverts dark brown, margined with pale brown; base and tips of the secondaries white, forming a double band across the centre of the wing, the intermediate space dark brown, with pale brown edges; primaries dark brown; tail-feathers dark brown, with the exterior web of the outer feather on each side, and the extreme edge of the next, white; all the remainder edged with pale brown; stripe before and behind the eye and one from the angle of the mouth dark brown; throat, sides of the face, under part of the wings, and all the under surface dull white; the lower part of the throat and the breast ornamented with numerous oblong spots of dark brown; bill and feet yellowish.

We have figured an adult male of the natural size.



LARK-HEELED BUNTING.
Plectrophanes lapponica; (*Selby*).

Illustrated from a specimen in the collection of the British Museum.

Painted by C. B. S. S. S. S.

LARK-HEELLED BUNTING.

Plectrophanes Lapponica, *Selby*.

Le Bruant Montain.

So little is known of the history and changes of plumage which this scarce bird undergoes, that we are left in doubt as to whether the tricoloured livery of the upper bird in our Plate, which is that of the male in summer, is exchanged in winter, as in the case of the Snow Bunting, for a more uniform and sober dress, or whether, like some of the more typical Buntings, (*Emberiza Schæniculus*, Linn., for example,) it retains its strongly contrasted colouring throughout the year. We make this observation because there have been frequently examples killed in England, all of which resembled the lower bird of the Plate. Some of these, on dissection, proved to be males, and were most probably immature birds, the migrations of which are known to be, according to the general rule, both more widely diffused and more irregular in their course than those of mature birds.

The summer retreat of the Lark-heeled Bunting, where it incubates and rears its brood, is within the limits of the arctic circle, from whence, as winter approaches, it gradually passes southwards, in Europe as far as Switzerland, and in America visiting the northern parts of the United States in considerable abundance. Its nest, according to Dr. Richardson, who observed it in the arctic regions of the American continent, is placed upon a small hillock, among moss and shrubs, and is composed externally of the dried stems of grass interwoven to a considerable thickness, and lined very neatly and compactly with deer's hair. The eggs are usually of a pale ochre yellow, spotted with brown.

In habits and manners the Lark-heeled Bunting resembles very closely the Snow Bunting, with which it is sometimes found associated; and it is worthy of remark, that the examples killed in England have been found among the vast quantities of Larks exposed for sale in the markets of London and other large towns, a circumstance indicating its almost exclusively terrestrial habits. Its food consists of grain, the seeds of various mountain plants, and perhaps insects.

The colouring of the adult male may be thus detailed:

The top of the head, cheeks, throat, and chest jet black, interrupted by a line of white, which passes from the base of the beak over the eye, behind which it dilates and extends to the occiput, bounding the ear-coverts; a broad band of chestnut passes across the back of the neck; the whole of the upper surface is brown, each feather being edged with rufous, and having a black dash in the centre; the sides of the chest and under surface white, the flanks with a few dashes of black; bill yellow, passing into black at the tip; tarsi blackish brown; irides hazel.

The female, according to M. Temminck, resembles the young bird in her general colouring, except that a band of reddish white occupies the same place as in the male, and unites with a white streak, which passes from the angle of the beak; the throat is white, bounded laterally by a broad band of brown; the breast is marked with blotches of grey and black, and the under parts are white.

The young birds, as we may presume those to have been that were taken in this country, have the whole of the upper surface brown, each feather bearing a reddish edge, and a dark central dash; the under surface dirty white, with dashes of brown along the sides.

The Plate represents an adult male, and a young bird of the year, of the natural size.



SNOW BUNTING.
Electrophanes nivalis; (*Meyer*).

SNOW BUNTING.

Plectrophanes nivalis, *Meyer*.

Le Bruant de neige.

THE SNOW Bunting may be strictly pronounced a migratory species throughout the temperate countries of Europe, visiting them at the commencement of winter, and enlivening the bleak hills and barren shores which at this season of the year are deserted by those birds whose instinct has directed them to seek more southerly and consequently milder regions. The summer residences of this neat and chastely plumaged bird are well ascertained to be the northern hemispheres of the continents of Europe and America, over which portions of the globe it is generally and even universally diffused. The most wild and dreary spots of the northern parts of the latter continent are, according to the accounts of persevering travellers who have visited those regions, animated with the presence of the Snow Bunting. Dr. Richardson informs us, that Southampton Island, situated in the 62nd parallel, (where this species was observed by Captain Lyon,) is the most southern locality which has been discovered as its breeding-place. As soon as the task of incubation is accomplished, they commence their migrations towards warmer regions, although, by the authority of the above-mentioned traveller, they do not hasten southwards with that immediate alacrity which distinguishes the passage of many other small birds; they linger rather in the vicinity of forts by the sea-side and other exposed places, subsisting on the seeds of grasses, and performing their journey by short stages until the approach of colder weather quickens their progress; indeed the visits of the Snow Bunting to our own island seem to depend very much on the severity of the winter in their northern retreats. The Shetland and Orkney Islands are their first resting-places, whence they proceed to the Highlands of Scotland, then the Cheviot-hills, and finally distribute themselves over the southern barren districts of the British Isles. Mr. Selby informs us, that "they arrive at the latter end of October, and generally in very large flocks, which seem chiefly to consist of the young of the year with a few adults intermixed, and afterwards, if the season should be severe, small flocks are seen, principally consisting of adult male birds in their winter dress." On the Continent they annually visit the North of Germany, France and Holland, in the latter of which countries M. Temminck states them to be very abundant, particularly by the sea-side, a situation to which they evince a partiality in our own Island, especially if a flat and sandy shore prevails. From all these places, on the approach of spring, they again flock to the northern latitudes, whence they originally came.

The Snow Bunting is subjected to a considerable variety of plumage, of which either sex, age, or season is the cause. The decided and contrasted plumage represented in the lower figure is not attained until maturity, and is then only observable in the summer season, at which time the male and female offer less distinction than is given in the accompanying Plate, the upper figure of which represents an immature bird in the plumage characteristic of the greater portion of those individuals who visit England. In this state it has been called the Tawny Bunting, and regarded by many authors as a distinct species. As the lengthened hind claw would lead us to conclude, the habits of this bird induce it to frequent rocks and arid districts, where they run with great celerity and are never known to perch on trees; and from the beak being destitute of the palatine knob, it has been separated with great propriety from the other Buntings.

The situations chosen for the nests of this species are niches in the rocks of mountainous places, and sometimes upon flat shores among large stones. The nest is formed of dried grass neatly lined with hair or feathers. The eggs are six or seven in number, of a pale flesh colour, speckled with minute dots, and blotched at the larger end with reddish brown. Their food consists of the seeds of alpine plants, and the larvæ of various insects.

The adult male in summer has the head, neck, under parts, outer tail-feathers and centre of the wings pure white; the remainder of the plumage, the feet, and bill black; irides dark brown. The female at this season differs only in having the back of the head, side of the chest, and a portion of the neck and breast tinged with rufous, and the other parts of the plumage of a less pure black. The male of the first year, the female, and adult birds in winter offer but little difference in the colour of the plumage. The upper figure in the Plate represents a bird in this stage, and the colouring may be thus characterized. The top of the head, sides of the breast, margin of the scapulars, back, and tail-feathers reddish brown; the throat, breast, four outer tail-feathers, under parts, and centre of the wings white; each of the back feathers has the centre brown; the quills and middle tail-feathers are also of the same colour beak reddish brown; irides dark brown; legs black.



COMMON BUNTING.
Emberiza miliaria, (Linn.)

Drawn from Nature on Stone by J. A. E. Gould

Printed by C. Hullmandel

Genus EMBERIZA.

GEN. CHAR. *Bill* conical, strong, hard, and sharp-pointed; tomia of both mandibles bending inwards, and compressed towards the point; the upper mandible narrower and smaller than the under one, and its roof furnished with a hard bony knob; base of the mandibles, or gape, forming an angle, and rather open. *Nostrils* basal and round, partly hidden by the small feathers at the base of the bill. *Feet* having three toes before and one behind; the anterior ones entirely divided. *Claws* rather long and curved. *Wings* with the first quills rather shorter than the second and third.

COMMON BUNTING.

Emberiza miliaria, Linn.

Le Bruant Proyer.

THIS well-known species of Bunting may be considered a permanent resident in the British Islands, over the whole of which it is dispersed; it is also equally abundant on the Continent, where it ranges from the regions of the arctic circle to the most southern boundary of Europe: of this fact we have received satisfactory evidence, by the inspection of examples from Trebizond in Asia Minor, which country would, however, appear to be nearly its southern and eastern limit, as we have never observed any specimens in collections either from India or Africa.

It is the largest and one of the most typical of its genus, having the palatine knob more fully developed than in any other species. Its food consists, in a great measure, of grains and seeds, which induces it to give a preference to those cultivated districts which afford the most abundant supply. Besides grain, many of the Buntings eat insects and their larvæ with avidity, and we have observed the present bird in particular feeding on the body of the large species of Chafer *Melolontha vulgaris*. During autumn and winter the Common Bunting congregates in flocks, often in company with the Lark, to which, in the flavour of its flesh, it is very similar; on the return of spring it is dispersed over the face of the country, being partial to hedge-rows skirting large fields, where it may be observed perched on the topmost twig uttering its oft-repeated monotonous note, which is more loud although not unlike that of the Yellow-hammer, *Emberiza citrinella*.

The ground is the situation chosen for the purpose of incubation, and in this respect it resembles the true Larks; the nest is composed of various grasses lined with hair and fibrous roots; the eggs are five or six in number, of a pinkish grey, streaked and spotted with reddish brown.

The sexes so nearly resemble each other in the colour of their plumage as to render a description of both unnecessary; the young also assume at an early age, with a trifling exception, the precise tints of the adult.

The whole of the upper plumage is brown inclining to olive, the centre of each feather being darker; the under surface yellowish white, with numerous stripes of dark brown running down the shaft of each feather; feet and bill brown.

The Plate represents an adult male of the natural size.



BLACK HEADED BUNTING.
Emberiza melanocephala, (Scopoli).

From the end of the 18th to

BLACK-HEADED BUNTING.

Emberiza melanocephala, *Scopoli*.

Le Brunt crocote.

WE are not able to enter into a minute detail respecting the habits and manners of this beautiful species of Bunting, as it has never been known to visit the British Islands, nor, as far as we are able to ascertain, either the northern or western portions of the European Continent; the middle and southern districts and the border-line which joins the Asiatic confines being its native locality.

M. Temminck informs us that it is very abundant in Dalmatia and all over the Levant, and common in Istria and in the environs of Trieste; he also states that it sings agreeably, and chooses hedgerows and low bushes for its place of incubation, building near the ground and laying four or five white eggs, thinly sprinkled with minute dots of a light ash-colour. Its food consists of seeds, grains, and occasionally insects.

In the male the whole of the head and the cheeks are deep black; the sides of the neck, throat, and the whole of the under surface of a fine king's-yellow; the back of the neck, the scapulars and back are of a rich rufous brown; the rump and tail-coverts inclining to yellow; the wings and tail light brown, each feather having a lighter edge; the beak ashy-blue; feet and tarsi light brown; length about six inches and a half.

In the female the whole of the upper surface is brown, the middle of each feather inclining to black; the throat yellowish white; the whole of the under surface inclining to a yellowish red.

In all our collections from Western India we receive this species in abundance, or if not this identical bird, one very closely allied to it, having all its characters, except that the feathers of the head instead of being entirely black are tipped with a grayish brown, and the rest of the plumage, which in the European species is so vivid and distinct, is less pure and decided.

The specimens from which our figures were taken form part of the collection of the Zoological Society of London, and were received from Berne. Switzerland we believe to be the western bounds of its locality.

In the annexed Plate we have figured a male and female in their spring plumage.



YELLOW BUNTING.
Emberiza citrinella, (Linn.).

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hallenmandel

YELLOW BUNTING.

Emberiza citrinella, *Linn.*

Le Bruant jaune.

WHILE perched on the topmost branch of the roadside hedge displaying its richly coloured tints, this well-known bird would, were it less common, excite great interest in the passing traveller, as well as in those who lead exclusively a country life, and who therefore have it under their observation during all seasons of the year.

The male is most attractive in the early months of spring, his energies at this period having by the natural impulse warned him of the approaching breeding-time. Now, being mated, he may be seen mounted on the most slender twig pouring forth his simple song, which, although neither melodious nor varied, nevertheless has a natural simplicity which cannot fail to please, and it is doubtless cheerfully listened to by his less gaily attired mate, who prefers the more secluded bush or more dense parts of the hedge-row.

The Yellow Bunting is rather a late breeder, seldom commencing until the herbage is sufficiently grown to afford it a complete shelter from observation. The shelving side of a bank or tuft of grass is generally selected for the situation of the nest, which is most neatly constructed of dried grasses and moss, lined with finer grasses and hair: the eggs are four or five in number, of a pale bluish white, marked with spots and lines of chocolate red.

In winter the Yellow Bunting associates in considerable flocks, often in company of other granivorous birds, and spreads over fields and arable lands; in severe weather resorting to farm-yards and similar situations. It is, we believe, indigenous in every part of Europe, to which quarter of the world it appears to be strictly confined, as we have never seen any examples of it in collections from any other locality.

The young during the first autumn resemble the female, which, as we have above stated, is much less brilliant in all her markings than the male.

The male has the crown of the head, throat, chest, and under surface rich gamboge yellow, the flanks and under tail-coverts streaked with reddish chestnut; the upper surface rich brown inclining to olive, the centre of each feather being darker; primaries blackish brown with lighter edges; rump brownish orange; tail brownish black, the outer edges of the feathers yellow, and the inner web of the outer feather on each side largely blotched with white; legs and feet yellowish brown.

The upper surface of the female resembles that of the male, but the tints are less brilliant; the under surface also is not so bright, and is destitute of the rich chestnut streaks which adorn the male, these markings being brown.

The Plate represents a male and female of the natural size.



YELLOW-BREASTED BUNTING.
Emberiza aureola. (Pall.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hollman.

YELLOW-BREASTED BUNTING.

Emberiza aureola, Pall.

La Bruant auréole.

THIS very beautiful Bunting has been more than once captured within the precincts of the European continent; it consequently becomes necessary for us to give a figure of it, and in so doing we introduce to our readers one of the most beautiful species of this group, so celebrated for their agreeable and well-contrasted colours. A specimen of the male, one of the very finest we have ever seen, was obligingly lent to us by T.B.L. Baker, Esq., of Hardwicke Court, Gloucester, a gentleman to whom we shall ever feel indebted for many acts of great kindness and liberality, and who has considerably facilitated the study of ornithology by the publication of a work entitled "An Ornithological Index", in which are enumerated the genera and species contained in the works of most of the present writers, and which he hopes will form a stepping-stone to a still more elaborate production by some more experienced ornithologist.

M. Temminck states that the native habitat of the Yellow-breasted Bunting is Kamtschatka, Siberia, and the Crimea; it has also been occasionally seen in the southern parts of Russia, and in other portions of the eastern boundaries of Europe.

The male is much more richly coloured than the female, and may be described as follows:

A band of black extends round the base of the beak and over the ear-coverts; the top of the head and the whole of the upper surface is of a rich chestnut, a band across the chest of the same colour; throat and under surface rich yellow marked with streaks of brown on the flanks; primaries and tail brown, the latter having the two outer feathers on each side marked with a large white spot near the tip; beak and tarsi brown.

The female is nearly devoid of the rich colouring which characterizes the male; the upper surface being dull brown tinged with green, the under surface olive yellow with the flanks marked as in the male.

The Plate represents a male and female of the natural size.



CIRL BUNTING.
Emberiza cirius; (Linn.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hollman & Co.

CIRL BUNTING.

Emberiza Cirlus, Linn.

Le Bruant zizi.

For the discovery of this beautiful species of Bunting in our island, we are indebted to the industry and research of the late Colonel Montagu. It is now much more numerous than it formerly was ; but unlike its ally the well-known Yellowhammer (*Emberiza citrinella*, Linn.), which is distributed through the whole of our island, the Cirl Bunting is extremely local in its habitat, being seldom seen in the midland and northern counties. It is common in Devonshire, and all along our southern coast. In Sussex we have ourselves seen it in abundance, particularly in the neighbourhood of Chichester, where it annually breeds. It is much more shy and retiring than the Yellowhammer ; its song is also different, more resembling that of the Chaffinch. It frequents nearly the whole of the southern provinces of Europe, and is especially abundant along the shores of the Mediterranean as well as in Italy and the southern parts of France. In general habits, manners, and nidification it closely resembles the Yellowhammer. Its nest is generally placed either beneath a low bush or at the foot of a large tree ; it is composed of dried grass intermingled with vegetable fibres, and lined with hair. The eggs are in general more round than those of the Yellowhammer ; in colour they are grey, marked with those peculiar zigzag lines of dark brown which are so characteristic of all the Buntings' eggs. Its food consists of various kinds of grain, to which insects are largely added, of which Montagu informs us grasshoppers are the greatest favourites.

The sexes offer a contrasted difference in the colour of the plumage, the male being adorned with a gorget of black and distinct facial markings.

The adult male has the crown of the head and back of the neck olive grey, the former exhibiting longitudinal dashes of black ; a yellow stripe from the base of the beak encircles the eye, and terminates on the side of the head ; the throat is black in summer, but as winter approaches it becomes obscured with olive grey ; below this black a yellow band extends across the throat ; the whole of the upper surface is reddish brown, each feather having a greyish margin ; quills blackish brown ; the breast, below the yellow gorget, is greenish olive ; sides of the chest washed with ferruginous under fine yellow ; two outer tail-feathers white for the greatest part of their inner web ; bill brown ; legs brownish flesh colour.

The adult female, which differs little from the young male of the year, wants the black throat and gorget of yellow ; the head is olive green with dashes of brown ; the chest is yellowish grey streaked with brown ; the under surface dull pale yellow ; and the upper plumage is less vivid than in her more ornamented mate.

Our Plate represents a male and female of the natural size.



ORTOLAN BUNTING.
Emberiza hortulana: (Linn.)

ORTOLAN BUNTING.

Emberiza hortulana, Linn.

L'Ortolan.

THIS bird has long been celebrated as one of the greatest delicacies of the table throughout the countries of France and Italy, for which purpose numbers are annually caught and artificially fattened. The South of Europe and the northern portions of Africa appear to be its natural habitat; it is nevertheless generally spread throughout continental Europe, even as far as Holland, Sweden and Russia. The British Isles are only occasionally visited; one of the examples, a male, now in the museum of the Natural History Society at Newcastle-upon-Tyne, having been taken on the Yorkshire coast. It is not improbable, however, that we should find this bird more frequent than it is believed to be, were it not overlooked from its similarity to the Yellow Bunting (*Emberiza citrinella*, Linn.).

Dr. Latham informs us that it is strictly migratory in its habits and is frequently taken in the spring and autumn at Gibraltar, whence we may suppose that the greater number pass over to Africa and make that continent their winter residence. It is during these migrations, when vast numbers are assembled together, that they are caught in traps, principally in Italy and the South of France, and are then kept by being placed in a dark room, and there fed with plenty of oats and millet-seed, upon which they quickly fatten. From the accounts of various authors, it would appear that they offer several variations of plumage, caused by peculiar diet and other circumstances: these varieties, being purely accidental, are not to be considered in the same light as the variations of plumage which occur in many other birds.

The nest of the Ortolan is constructed of fibres and leaves, and placed in the most convenient situation the locality may afford, most commonly in low bushes and hedges, but sometimes on the ground among corn. The eggs are five in number, of a reddish grey marked with streaks of brown.

The plumage of the male is much more lively than that of the female. The top of the head is greenish olive; an edging of white feathers forms the margin of the eyelid; ear-coverts brown; the throat, the sides of the face, below the eye, and the chest, are of a delicate yellow; the upper surface reddish brown, the feathers of the back and wings being dashed in their centre with black; the under surface pale tawny; beak and legs flesh-coloured.

In the female, the whole of the upper surface is greyish brown, with a number of small black lines on the head, the feathers of the back having their centres black also; the throat is pale yellow, and is bounded by a range of brown spots; the rest of the under surface is pale brownish red; the eyelid is edged with white as in the male.

The Plate represents an adult male and female of the natural size.



RUSTIC BUNTING.
Emberiza rustica, (Gmel.)

Drawn from Nature & on stone by J. B. G. G. G.

Printed by W. G. G. G.

RUSTIC BUNTING.

Emberiza rustica, *Pall.*

Le Bruant rustique.

For fine examples of both sexes of this exceedingly scarce Bunting we are indebted to the Directors of the Museum at Frankfort; and although its native country is Siberia, Kamtschatka, and the adjacent islands, we are inclined to admit it among the Birds of Europe, on the assurance of some naturalists that it is frequently found within the limits of the north-eastern portions of the Continent. M. Temminck has also admitted it on the same grounds, though he himself has never received it in a recent state, and until he does, he prefers taking his account from the work of Pallas.

In the disposition of its colouring the Rustic Bunting resembles several other species of the genus *Emberiza*; but it departs in a trifling degree from that form; and in the stoutness of its bill and the shortness of its tail would appear to approach the Finches.

The female may be distinguished from the male by the absence of the black colour on the crown of the head and ear-coverts; in other respects their plumage is closely similar.

We have no information to communicate respecting its habits and manners, nor is its nidification or the colour of its eggs as yet ascertained.

The male has the top of the head, with the exception of a white line down the middle, and the space between the beak and the ear-coverts, black; a broad white streak passes over the eye, and down the sides of the neck and throat; the whole of the upper surface is rich brown, each feather having a darker mark in the centre; this brown colouring passes into rufous on the chest, which it surrounds like a collar; the wings are of the same colour as the back; secondaries tipped with white; primaries and tail brown, the two outer feathers of the latter white on their outer edges; the flanks red brown, each feather having the centre darkest; under surface white; legs and bill dull yellow brown.

The plumage of the female is somewhat paler and more obscure than that of the male, and the black which ornaments the head of the male is replaced by brown; the stripe over the eye and down the throat is yellowish white.

The Plate represents a male and female of the natural size.



LESBIAN BUNTING.
Emberiza Lesbia, (Gmel.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Holloman del.

LESBIAN BUNTING.

Emberiza Lesbia.

Le Bruant de Mitilène.

THE *Emberiza Lesbia* is one of the rarest species of the present genus, but at the same time one of the most universally distributed; it sparingly inhabits the eastern parts of southern Europe, and occurs but very rarely in Italy and Provence; it is also found in Greece, and we have seen it in collections from China. M. Temminck states that it is found also in Japan, where it is known under the name of "*Jamuzuzume*."

In its habits and manners it doubtless closely resembles the other members of the family, and but little difference is perceptible between the sexes.

The head is greyish olive, with a stripe of dark brown down the centre of each feather; back of the neck and back reddish brown, with a broader and more conspicuous stripe down each feather, but becoming nearly imperceptible on the rump; wing-coverts chestnut, striped down the centre with blackish brown; secondaries blackish brown, bounded on each side with rufous and margined with pale brown; quills and tail brown margined with paler brown; ear-coverts deep reddish brown, beneath which is a broad stripe of buff; throat whitish; bounded on each side with numerous oblong spots of dark brown, which meet and cover the front of the breast; under surface buff, marked on each side immediately below the breast with several indistinct spots of chestnut, and on the flanks by stripes of dark brown on the centre of each feather; bill, legs, and feet pale brown.

The female only differs in having the spots on the sides of the throat and breast more numerous, and in having the whitish part of the throat less extensive.

We have figured a male and female of the natural size.



MEADOW BUNTING.
Emberiza cia, (Linn.).

MEADOW BUNTING.

Emberiza cia, Linn.

Le Bruant fou, ou de pré.

THIS species of Bunting, although common in the meadows bordering the Rhine, as well as in the southern parts of France, Italy, Spain, and adjoining the Mediterranean, does not appear to be distributed in the North as is the case with so many of its congeners, neither Holland nor England being among the places of its habitat.

The nearest-allied species among our native Buntings is the Reed Bunting (*Emberiza schæniculus*, Linn.), which it resembles, not only in its general habits and manners, but in the peculiar character of its markings, particularly about the head, and in the feebleness of the beak. The nearest extra-British species in alliance with it is the *Emberiza lesbia*: and it would appear that with both of these birds in certain stages of plumage it has been confounded; and not with these only, as will appear from the following translation of a note which we have taken the liberty of extracting from M. Temminck's *Manuel d'Ornithologie*. "Besides the double use which Buffon makes of this species in describing it under the name of Foolish Bunting, and Lorraine Bunting, he commits a second error in giving his description and *Ortulan de neige*, pl. 511. fig. 2, as the female of the *Ortolan de Lorraine*. The German authors are equally in error in enumerating under the synonym of *Le Bruant fou* the birds described and figured by Buffon under the names of *Gavoué* and *Mitilène de Provence*; these form two distinct species. The French naturalists place the *Emberiza passerina* of Gmelin, *Syst. i.* p. 871. sp. 27., in the synonym of *Le Bruant fou*, while the description of Gmelin portrays very exactly an old female of *Le Bruant des roseaux*."

The *Emberiza cia* offers in its sober tints a harmony of colours which renders it far from being the least pleasing of its genus. The food of this bird, as its feeble bill indicates, consists of the small seeds of farinaceous plants, such as millet, canary, &c., as well as insects of various species; in fact, as above stated, its manners and actions are in close unison with our well-known Reed Bunting. It constructs a nest in bushes and tufts of herbage, and not unfrequently on the ground: the eggs are five in number, of a whitish colour marked with a few lines of black.

The whole of the head and breast is ash coloured; three stripes of black occupy the face on each side, one passing above the eye, one through the eye to the occiput, and one encircles the lower part of the face from the angle of the beak; a greyish white stripe passes above the eye, bordered by the two lines of black; the whole of the upper surface is of a rufous brown, each feather having a dusky mark down the centre; the feathers of the shoulders are edged with light grey; the primaries brown; the three outer tail-feathers white, the remainder brown edged with reddish; the whole of the under surface pale rufous.

The female is destitute of the beautiful grey which ornaments the head and chest of the male, as well as the jet black lines, which are only faintly indicated on the cheeks; the head and chest are pale greyish brown; the throat dotted with dusky spots; the rest of the plumage resembles the male, except that it is more obscure.

The Plate represents a male and female of the natural size.



PINE BUNTING.
Emberiza pithyornus, (Pall.)

PINE BUNTING.

Emberiza pithyornus, *Pall.*

Le Bruant à couronne lactée.

IN size this rare Bunting rather exceeds the Yellow-hammer (*Emberiza citrinella*, Linn.), which so frequently attracts the notice of the passing traveller through the British Islands. Its true habitat would appear to be the northern parts of Russia and Siberia, though, according to M. Temminck, it is frequently found as far south as the centre of Turkey, and the shores of the Caspian Sea, Hungary, Bohemia, and Austria are among the places of its resort. Dr. Latham states that it frequents the pine-forests of Siberia, and has the note of the Reed Bunting. Although it has not the brilliant yellow colouring which pervades the plumage of many of its tribe, the *Emberiza pithyornus* is very pleasing to the eye, from the harmonious arrangements of its rich but somewhat sober tints, in which respect, and in fact in its whole contour, it assimilates exceedingly to the Bunting-like Finches of the New World, such as the *Emberiza leucophrys*, Gm., (*Zonotrichia leucophrys*, Sw.); and in all probability, when the vast countries of Siberia, Kamtschatka, &c. have been more thoroughly investigated, that species, intermediate in form, will be found to complete this chain of affinities.

The sexes of the Pine Bunting may be distinguished from each other by the more obscure colouring of the female, and the total absence of the gorget and superciliary stripe of chestnut with which the male is adorned.

The plumage of the male is as follows :

A stripe of white passes along the top of the head to the occiput ; on each side of this white stripe is another of black, and this is again succeeded by one of chestnut immediately over the eye ; ear-coverts white ; throat rich chestnut ; below this is a half band of white succeeded by a broad band of dusky greyish chestnut across the chest ; whole of the back, wings, and flanks rich brown, each feather being darkest in the centre ; rump and upper tail-coverts pale chestnut ; tail brown, each feather edged with reddish brown, and the two outer ones largely blotched with white ; centre of the breast, belly, and under tail-coverts white ; legs and bill yellowish brown.

The female is more obscure in all her markings ; the ear-coverts are brown with a band of white beneath them ; superciliary mark yellow white ; throat white surrounded with small dark spots.

The Plate represents a male and female of the natural size.



CRETZSCHMAR'S BUNTING.
Emberiza caesia, (Cretzschm.).

CRETZSCHMAR'S BUNTING.

Emberiza caesia, *Cretzschmar*.

Le Bruant cendrillard.

WE have received beautiful examples of this rare bird from Dr. Cretzschmar of Frankfort, who has also obliged us with numerous other rarities from the fine collection under his charge. From the circumstance of so distinguished a naturalist having added this interesting bird to the Fauna of Europe, as an occasional visitant to the southern and eastern portions of that continent, we feel no hesitation in inserting it in the present work.

The true habitat of the *Emberiza caesia* are the northern and eastern portions of Africa, in which countries it was observed in abundance by Dr. Rüppell. In the third part of his "Manuel d'Ornithologie," M. Temminck states that "it inhabits Syria and Egypt; is probably more common in the middle of Europe than it is supposed to be, where isolated individuals may have been taken for varieties of the *hortulana* and *cia*; it is found accidentally in Austria and Provence, an individual having been taken near Vienna in 1827.

We have never seen an example either from India or any of the islands of the Archipelago, which circumstance would lead us to conclude that it is almost exclusively confined to the portion of the globe above mentioned, and in which it will be necessary to seek for information relative to its peculiar habits and economy.

The plumage of the sexes is less contrasted than is generally observed in birds of this genus. In spring the male has the top of the head, back of the neck, ear-coverts, and chest grey; a narrow streak of the same colour passes from the chest to the base of the lower mandible; throat, cheeks, and a narrow band across the forehead light chestnut brown; upper part of the back brown, each feather having a darker centre; rump and upper tail-coverts brown without spots; the whole of the abdomen rich chestnut brown, more intense on the breast; wings dark brown; the secondaries and scapularies strongly edged with light brown inclining to chestnut; tail dark brown, the outer edges of the feathers chestnut, and the two outer ones on each side largely tipped with white on their inner webs.

The female has the chest marked with numerous small spots of black on a ground of brownish grey, which colour pervades the whole of the head; the remainder of the plumage resembles that of the male, only being much less intense in colour.

The Plate represents a male and female in their spring plumage, of the natural size.



MARSH BUNTING.
Emberiza palustris, (Savi.)

MARSH BUNTING.

Emberiza palustris, *Savi*.

THIS rare species, which offers so close a resemblance in general colouring and habits to our well-known Black-headed Bunting, (*Emberiza melanocephala*, Scopoli,) exhibits nevertheless, in the robust structure of its beak, a departure from the typical characters of the genus, and either forms its extreme limits, or may be regarded as the representative of another genus ; but its affinities are at present but little understood, the bird itself being very rare, and only to be met with in the southern and eastern provinces of Europe.

The best account of this bird is to be found in Professor Savi's "*Ornitologia Toscana*," according to which eminent author it dwells in the marshes of Tuscany, but he has not yet been able to obtain a sight of its nest and eggs ; if, however, we may judge from analogy, we may consider its habits and manners as very much resembling those of the Common Reed Bunting. Professor Savi further informs us that it inhabits the vicinity of stagnant waters covered with reeds and bulrushes, and that it feeds to a great extent upon the insects which lodge upon the culmens of the reeds.

The sexes offer the same relative differences that are observed in the Reed Bunting, the black head of the male being exchanged in the female for brown blotched with dashes of black.

In the male, the upper part of the head, cheeks, and throat are black ; a white stripe begins near the angle of the beak, and extends round to the back of the neck ; the whole of the upper surface is of a rich chestnut brown, the centre of each feather being largely blotched with black ; the under surface is white, the flanks being marked with longitudinal lines of brown ; bill black ; tarsi brown.

The female, which closely resembles the male in her general plumage, is distinguished by the colouring of the head already alluded to ; by the absence of the white stripe round the neck ; and by the dull brownish white of the under surface, which is thickly dashed with longitudinal spots of deep brown.

The Plate represents a male and female of the natural size.



REED BUNTING.
Emberiza schœniculus, (Linn.)

REED BUNTING.

Emberiza Schœniculus, Linn.

Le Bruant de Roseau.

THE situations to which the Reed Bunting gives preference are the edges of rivers, large ponds, and beds of osiers; though at certain times, particularly during severe weather, it quits its marshy abode and associates with the Yellow-hammer and other small granivorous birds, frequenting at such periods the open fields, and, when pressed by hunger, visiting even the farm-yard, in search of a more abundant supply. It appears to be indigenous in every portion of Europe, or if not in every portion, at least through the whole of the centre. Like some other species of its genus, its summer and winter plumage exhibits a remarkable contrast; the male being characterized during the former season by a jet black head and throat, rendered more conspicuous by the white stripe from the base of the bill, and the collar of the same colour round the back part of the neck: in winter the male loses the black plumage of the head and throat, and is then scarcely to be distinguished from the female. The assumption of the black colouring commences early in spring, and is fully accomplished at the approach of the breeding-season, which begins as soon as a sufficiency of fresh herbage and the young shoots of the willow have rendered the reed a covert dense enough to shelter the nest from observation. The nest is generally placed near the ground, on a low stump of willow or any entangled herbage: the eggs are five or six in number, and of purplish grey, streaked and spotted with dark red brown.

The Reed Bunting is not at all remarkable for its song, which consists of only a few simple notes delivered without either energy or execution.

In summer the male has the whole of the head, ear-coverts, and throat black, the two latter being separated by a white stripe, which extends from the base of the bill to the sides of the neck, where it meets a collar of the same colour extending from the back of the neck; the whole of the upper surface of a rich brown, the centre of each feather being of a darker hue; the two middle tail-feathers brownish black edged with brown, the outer feathers largely blotched with white at their extremity; under surface white clouded with brown; flanks spotted longitudinally with obscure dusky lines; bill black; feet and legs brown.

The female differs from the male in having the general plumage more obscure, and in the total absence of the black head and white collar which are so conspicuous in the male; her flanks are also more largely spotted with brown.

The Plate represents a male and female in their summer plumage, of the natural size.



1. HOUSE SPARROW.
Pyrgita domestica, (Cuv.)

2. TREE SPARROW.
Pyrgita montana, (Cuv.)

Drawn from Nature & on stone by J.E. Gould.

Printed by C. Hollensted.

Genus PYRGITA, Cuv.

GEN. CHAR. *Bill* strong, conical, longer than deep; upper mandible slightly curved; tip emarginate; culmen slightly raised; lower mandible compressed and smaller than the upper. *Nostrils* lateral, immediately behind the bulging base of the upper mandible, round, and nearly concealed by small plumes. *Wings*: the second quill-feather rather the longest. *Tarsi* nearly as long as the middle toe. *Toes* three before and one behind, those in front divided: claws sharp and curved, that of the hind toe rather larger than that of the middle. *Tail* square or very slightly forked.

COMMON SPARROW.

Pyrgita domestica, Cuv.

Le Gros-bec Moineau.

OF the four species of this group indigenous to Europe, no one is more extensively spread or more generally known than the Common Sparrow, a bird with which we are all so well acquainted that to enter into the details of its history seems almost superfluous. We are informed that in Italy and Spain its place is supplied by two species peculiar to those countries, viz. *Pyrg. Cisalpina* and *Pyrg. Hispaniolensis*, but with this exception it is undoubtedly spread over the whole of Central Europe; it also occurs in Northern Africa and in the hilly districts of India. In England it is stationary throughout the year, congregating in flocks in autumn and winter, but in summer dwelling and breeding either in small companies or in pairs. Accommodating itself to all situations, it breeds indifferently among the branches or in the holes of trees and under the eaves of houses, not unfrequently usurping the nest of the Common Martin (*Hirundo urbica*); but never far from the habitation of man, to whose presence it appears perfectly indifferent, hence we see it as abundant in the largest cities as in the smallest villages. The nest when placed in a tree is of a domed form, carelessly constructed of straw, grass, and any materials at hand, but always lined with feathers: the eggs are five or six in number, of a greyish white spotted with brown. The food of the Common Sparrow consists, during a great part of the year, principally of seeds and grain of different kinds, which in summer are in a great measure exchanged for insects and their larvæ, with which it invariably feeds its young. This bird is destroyed in vast numbers in many agricultural districts, on account of the supposed injury it inflicts upon the farmer by the destruction of his corn; but we much question whether this practice can be fairly justified, for we conceive that the injury it may inflict is more than counterbalanced by the benefit accruing from the havoc it commits among the insect tribes, which are in fact the real enemies of the farmer, the fruit-grower, and every cultivator of the land; and we ourselves incline to think that it would be better to protect the grain or even to sacrifice some portion of it, than utterly to exterminate a creature which has, no doubt, been wisely appointed to fill its place in the great scheme of creation.

The male Sparrow is really a pretty bird when seen undisguised by the smoke and dirt which disfigure its plumage in our larger towns and cities: the crown of the head is bluish grey, back of the neck and stripe from the eye rich chestnut; cheeks and sides of the neck greyish white; throat and chest black; upper surface rich brown dashed with black; a white bar across the shoulders; under surface greyish white; feet and bill black in summer and brown in winter.

The female has the upper surface dull brown; the under surface greyish brown; and the feet and bill brown at all seasons.

TREE SPARROW.

Pyrgita montana, Cuv.

Le Gros-bec Friquet.

UNLIKE the preceding species, which loves to dwell in the streets of our towns, this affects the open country, where every field and wood affords it food and a congenial habitat. In the British Islands it is extremely local in its range, being scarcely known in some counties, while in others, Essex, Cambridgeshire, &c., it is tolerably abundant. It is found in most parts of central and southern Europe, and we have also received it from the Himalaya mountains and from China. The food consists of seeds, grains, and insects. Like all the other members of this restricted genus it is devoid of song. The nest is constructed in the holes of stunted trees and pollards, and very closely resembles that of the Common Sparrow, as do the eggs also, except that they are smaller. The sexes offer no difference in the colouring of the plumage. The Tree Sparrow may be distinguished from the male of the common species by its being much smaller in size, and by its having the top of the head rich chestnut brown; a patch of black on the ear-coverts, and two narrow bars of yellowish white across the shoulders.

The Plate represents a male and female of the Common Sparrow, and an adult male of the Tree Sparrow.



1. SPANISH SPARROW.

Pyrgita Hispaniolensis, (Cuv.)

2. ALPINE SPARROW.

Pyrgita Cisalpina, (Cuv.)

SPANISH SPARROW.

Pyrgita Hispaniolensis, Cuv.

Le Gros-bec Espagnol.

THE two species illustrated by the present Plate, bear, as will be seen, so close a resemblance to our common domestic sparrow, as at first sight to be easily mistaken for that bird, and therefore require a more than common attention to the disposition of the colouring, &c., in order to establish their differences. We have to lament that we cannot say much respecting their habits and manners; as those who have had opportunities of seeing them in their native localities appear to have noticed them so little, that the accounts are of the most meagre description. They appear to fill up the same place in the situations they inhabit that the common species does here, but are more inclined to resort to the barren lands and rocky districts of the country, than to collect in the villages and towns.

Of the two species given in our Plate, the *Pyrgita Hispaniolensis* is the least known. Its true habitat appears to be the southern portions of Spain, Sicily, the Archipelago, and Egypt. We have omitted to figure the females of these two species, as they so closely resemble those of our own country as not to be distinguished by plumage alone, without an intimate knowledge of the examples under examination.

The top and back of the head is of a bright and strong chestnut; the back and shoulders black, each feather bordered with rufous; the throat, fore part of the neck and chest, black; the sides marked with long dashes of the same colour; belly white; line over the eye and the cheeks dirty white; beak black, and more lengthened than in our own domestic species, or that which follows.

ALPINE SPARROW.

Pyrgita cisalpina, Cuv.

Le Gros-bec cisalpin.

“THE Alpine Sparrow,” says M. Temminck, “is only seen in the southern countries on the other side of the great chain of the Alps and Apennines, never on the northern side of those mountains:” from these localities it appears to extend itself along the whole of Italy and the southern countries of Europe. It differs in its habits from our own species, inasmuch as it gives the preference to plains and open country instead of cities and villages.

In the male, the top of the head and back of the neck are of a pure bright chestnut in summer, becoming, after the autumn moult, of a redder tinge, every feather being then edged with rufous; the cheeks pure white; in other respects the colour is like that of our own bird.

The female is so like that of *P. domestica* that one description will apply to both, with the exception that in the present bird the head and back of the neck are of a lighter ash-colour, and that its tints are generally paler.

Of the nidification and eggs of the two species here figured we have been unable to obtain any information. Our Plate represents a male of each species, and the head of the female of *P. cisalpina*.



DOUBTFUL SPARROW.
Pyrgita Petronia.

Drawn from Nature & on stone by J. E. Gould.

Printed by C. Ballou and Co.

DOUBTFUL SPARROW.

Pyrgita Petronia.

Le Gros-bec soulcie.

WE have followed the example of many previous ornithologists in associating this bird with those forming the restricted genus *Pyrgita*, or true Sparrows, although we doubt the propriety of so doing, as we think that it possesses peculiar characters, which would entitle it to rank as the type of a separate genus: its strong conical bill, lengthened wing, and abbreviated tail are not in strict unison with the generic characters of *Pyrgita*; but we have refrained from separating it, being desirous of obtaining further information respecting its habits and manners, which doubtless differ in many particulars from those of the Sparrows the typical form of which is represented by the common species inhabiting England. Independently of the characters alluded to as differing from those of *Pyrgita*, we may add that in this genus the markings and colour of the plumage of the sexes are very different, while in the sexes of the present bird no outward variations are perceptible.

Dr. Shaw informs us in his General Zoology, vol. ix. part ii. p. 434, that "this species is found over the greatest part of Europe, in the southern portions of which it is migratory, but is nowhere so common as in Germany. It is not found in this country; it affects woods, and builds in the holes of trees, laying four or five eggs, and feeds on seeds and insects. These birds are very delicate, as numbers are often found dead in trees in the winter, during which time they assemble in flocks."

The top of the head is longitudinally banded with greyish white tinged with yellow, which colour pervades each of the feathers of the back and upper surface; wings brown; the secondaries and scapularies tipped with yellowish white; primaries and tail brown with the outer webs margined with yellowish white; the inner webs of all the feathers of the latter, except the two middle ones, having a large spot of white near the extremity; under surface dusky grey and white, mixed deepest on the flanks; upper mandible brown, lower one yellow at the base and brown at the tip; irides brown; feet brown.

We have figured a male of the natural size.



CHAFFINCH.
Fringilla coelebs, (Linn.)

Genus FRINGILLA.

GEN. CHAR. *Bill* concave, longer than deep, straight, and pointed; cutting edges entire, and forming a straight commissure. *Nostrils* basal, lateral, oval, partly hidden by the frontal plumes. *Tail* slightly forked. *Legs* having the tarsi of mean length, with the toes divided and adapted for hopping or perching. *Claws* sharp.

CHAFFINCH.

Fringilla Cœlebs, Linn.

Le Gros-bec pinson.

THIS ornamental Finch is so well known to all persons whose attention has been directed to the habits of our native birds, that we doubt whether we can offer any novelty relative to its history. It appears to be very generally distributed over every portion of Europe, in most parts of which it is stationary. "All the ornithologists," says Mr. Selby, "describe this species as permanently resident with us, and nowhere subject to that separation of the sexes, and the consequent equatorial movement of the females, which is known to take place in Sweden and other northern countries. The fact, however, is otherwise, as the experience of a series of years has evinced that these birds, in a general point of view, obey the same natural law in the North of England. In Northumberland and Scotland this separation takes place about the month of November, and from that period till the return of spring few females are to be seen, and those few always in distinct societies. The males remain, and are met with, during the winter, in immense flocks, feeding with other granivorous birds in the stubble lands, as long as the weather continues mild, and the ground free from snow; and resorting, upon the approach of storm, to farm-yards, and other places of refuge and supply." The remarks which we have quoted from Mr. Selby will apply to the habits and manners of this bird in the South of England. We have observed that during autumn and the early parts of spring our gardens and orchards are comparatively deserted by this handsome bird, and that it must then be sought for in the wide fields and hedge-rows, far removed from our immediate precincts. It pairs early in the spring, and again returns to enliven our gardens and orchards by its simple song and sprightly actions, when the work of nidification is soon commenced. The nest is of the neatest construction, being outwardly composed of the most delicate lichens, (generally obtained from the apple-tree,) interwoven with wool, and lined with feathers and fine hair; it is placed in various situations, such as the branch of an apple-tree, the whitethorn, or any other shrub or tree whose foliage affords it a sufficient shelter to protect the eggs, which are four or five in number, of a pinky white spotted with reddish purple.

The food of the Chaffinch is of a mixed nature, feeding in winter on grains and seeds, and in summer on most species of insects and their larvæ, which it devours with avidity.

The sexes, as is the case with most of the true Finches, offer a contrasted difference in their colouring; neither can the beautiful spring plumage remain unobserved, when compared with the sober livery of winter.

The male in spring has the bill of a fine blue grey; the crown of the head and nape rich grey; the centre of the back chestnut; rump greenish yellow; lesser wing-coverts white; quills black, edged with yellowish white; two middle tail-feathers grey, tinged with olive; three next, on each side, entirely black; the outer ones with a large white spot on their inner webs; the cheeks, neck, throat, and under surface chestnut brown; lower part of the belly and vent white; legs and feet brown. In the female the whole of the upper surface is olive brown, becoming richer on the upper tail-coverts; cheeks, throat, and under surface greyish brown; vent and under tail-coverts white; the wings and tail as in the male, but the white marks less distinct.

The young males in autumn resemble the females.

Our Plate represents the birds in their spring plumage, although we must acknowledge our inability to do justice to the rich and harmonious tints which pervade the feathers of the living bird, and which afford so much attraction and ornament to our lawns and shrubberies.



MOUNTAIN OR BRAMBLE FINCH.
Fringilla montifringilla, (Linn.)

Drawn from Nature &c. in Stone by J. E. Gould.

Printed by C. Hollensted.

MOUNTAIN OR BRAMBLE FINCH.

Fringilla montifringilla, Linn.

Le Gros-bec d'Ardennes.

THIS species of Finch is dispersed in considerable abundance throughout every country in Europe, and, as its specific name implies, prefers high and mountainous districts. In many parts of the Continent it is stationary, while in others it is strictly migratory. In the British Islands the winter season alone is the period of its visits, where it makes its appearance at the end of the autumn, and retires again on the approach of spring. During summer it dwells and incubates in those extensive forests of fir and pine which abound in all high northern latitudes. Although few seasons pass without the presence of this elegant bird in the central portions of our island, nevertheless it must have been remarked that at certain periods it makes its appearance in some of our woods and stubble-lands in flocks, often associating with Chaffinches and other granivorous birds in innumerable quantities. As to situation, they appear to evince a decided preference to woods of beech, on the mast of which they for a time subsist, feeding also on various seeds and the shoots of tender vegetables, resembling in this and many other respects the Chaffinch (*Fringilla cælebs*, Linn.), and like the latter is equally typical in form; and for beauty and elegance it is not surpassed by any other of its genus. Although it is very probable that a limited number of this species remain to breed in the northern parts of Scotland, yet we have never been able to verify the fact. It is said to incubate in forests of lofty pine and spruce, the nest being composed of moss and wool, lined with feathers and hair. The eggs are white, spotted with yellowish brown, four or five in number.

In the general style of colouring the two sexes are similar; the male, however, far surpasses his mate in the richness and contrast of his plumage. In summer the male is adorned with a different dress from that of winter, that portion of the plumage which is then brown being exchanged for black during the spring and breeding-season. The male bird in the accompanying Plate exhibits a state of plumage intermediate between these two seasons, both sexes having been taken immediately before their departure.

The male has the head, ear-coverts, nape, and upper part of the back black, each feather being edged and tipped with yellowish brown; scapularies barred across the centre of the wing with white; edges of the secondaries, throat, and chest bright ferruginous brown; rump and vent white; primaries black edged with yellowish red; bill black at the tip, yellow at the base; legs brown; irides hazel.

The female has the general markings and colours of the male, but in every respect much more obscure and dull.

The Plate represents an adult male and female of the natural size.



SNOW FINCH.
Fringilla nivalis, (Linn.)

Drawn from Life & on Stone by J. & E. Gould.

Printed by O. Hallenmandel.

SNOW FINCH.

Fringilla nivalis, *Linn.*

Le Gros-bec niverolle.

THIS species of Finch approximates so closely in form and general style of colouring to one species of the genus *Plectrophanes*, that it has been with some difficulty we have decided upon following the arrangements of M. Temminck in still retaining it in the genus *Fringilla*. We find that this bird, as it departs from its more typical relations, exhibits the same differences, and assumes almost the same characters and general appearance, as the Snow Bunting, *Plectrophanes nivalis*: the construction of its bill, however, which more strictly resembles that of *Fringilla*, denotes its true situation, and a more beautiful link could not be conceived, uniting as it does in the most complete manner the species of two genera, viz. the Buntings and Finches. Still it cannot be denied that the Snow Finch has as great a claim to a new generic title as the Snow Bunting, possessing as it does characters so essentially different from the true Finches.

We are led to believe from its form and the imperfect accounts published respecting its history, that its habits are in a great measure terrestrial, although it chooses the most elevated situations, such as the Alps, Pyrenees, and other mountainous districts of Europe, the British Isles excepted. In these wild and barren regions, upon the very verge of perpetual snow and ice, it dwells in unmolested security, and there finds that food which nature has destined for its support. This, according to M. Temminck, would seem to be of a mixed nature, consisting of seeds of various kinds, often that of the fir cone, and various species of insects. It builds its nest in crevices of the rocks, laying four or five eggs of a light green, irregularly sprinkled with ash-coloured dots, intermingled with blotches of dark green.

The sexes offer but little difference in plumage; neither does the summer and winter dress exhibit much variation, the beak being more or less yellow in winter, but deep black in summer.

In the male the top of the head, the cheeks and back of the neck are of a blueish ash; the scapulars and the two secondary feathers nearest the body are deep brown; all these feathers being bordered with a lighter colour; the remainder of the secondaries, the wing-coverts and the coverts of the tail are pure white; tail white, with the exception of the two centre feathers, which are blackish, and the whole tipped with the same colour; quill-feathers deep black; the under parts are white or whitish according to age; feet brown. This description applies to the female also, except that we find in her the ash colour of the head tinged with rusty brown, and the quill-feathers brown instead of black.

We have figured a male in summer plumage, and a female in that peculiar to winter.



WINTER FINCH.
Fringilla hyemalis; (Linn.)

Drawn from Nature & on Stone by J. E. Gould

Printed by C. Hollensted

WINTER FINCH.

Fringilla ? hyemalis.

Le Bruant Jacobin.

THE natural habits of this little Finch lead it to extend its summer migrations further north perhaps than most other members of the *Passerine* Order, and it is consequently an inhabitant of the regions far within the arctic circle, is common in Greenland, and has within the last few years been added to the Fauna of Europe. In the third part of his 'Manuel' M. Temminck states that it occasionally visits Iceland, and may perhaps be considered a bird of periodical passage in this portion of Europe.

Like the Robin the Winter Finch evinces little fear of man, and readily admits his near approach even in fine weather, and in hard weather is "so gentle and tame," says M. Audubon, "that it becomes, as it were, a companion to every child," and is indeed as well known and as much cherished by every person in America as the Robin is in Europe. It usually lives in families of twenty or thirty, is very jealous of intrusion, and readily darts forth to repel the invader. It is particularly fond of grass-seeds, and grain and berries of all kinds. M. Audubon also states that in its habits and manners it much resembles the Sparrow, resorting for shelter during cold weather to stacks of corn and hay, but in fine weather evincing a preference for the evergreen foliage of the holly, cedar, low pines, &c.

Of its nest and eggs nothing is known.

According to M. Audubon its flesh is extremely delicate and juicy, on which account it is frequently exhibited for sale.

The male has the head, all the upper surface, eight middle tail-feathers, wing-coverts, primaries, and chest blackish grey; secondaries blackish brown margined with reddish brown; two outer tail-feathers on each side white; under surface white, with a tinge of rufous on the flanks and under tail-coverts; bill reddish white with a black tip; irides blackish brown; feet and claws flesh colour.

The female differs in being of a lighter grey tinged with brown.

We have figured a male and female of the natural size.



COMMON OR BROWN LINNET.
Linaria Cannabina, (Swains.)

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. H. Johnson.

Genus LINARIA, *Auct.*

GEN. CHAR. *Bill* straight, conical, entire; mandibles compressed in front, and forming a very sharp point. *Nostrils* basal, lateral, concealed by incumbent feathers. *Wings* long, acuminate; first, second, and third quill-feathers of nearly equal length. *Tail* more or less forked. *Tarsi* slender, short. *Feet* having the lateral toes of equal length; the hind toe with its claw as long as the middle one. *Claws* slender, acute, curved, that upon the hind toe larger, and in old birds much longer than the rest.

COMMON, OR BROWN LINNET.

Linaria cannabina, *Swains.*

Le Gros-bec Linotte.

THE seasonal changes of plumage to which the *Fringillidæ* are generally subjected is in no one of the tribe more strikingly exemplified than in the birds constituting the restricted genus *Linaria*, of which the Common Linnet is the largest, and offers the most contrasted changes, being in winter clothed in a sombre and nearly uniform dress of brown, which in spring is exchanged for a rich rosy red on the crown of the head and breast, and in autumn it resumes the sombre winter colour: this diversity of plumage has caused some confusion, and added numerous synonyms to the name of the Common Linnet, and its nearly allied species the Redpole.

The Linnet is strictly indigenous to the British Islands, over the whole of which, and Europe generally, it is plentifully dispersed. It associates in flocks, and feeds upon small seeds, particularly those procured from the wild cruciform plants, &c. Open districts, such as commons and furze fields, constitute its favourite localities. The thickest parts of the furze bushes are generally selected for the sites of incubation, and the building of the nest is commenced early in the spring: it is constructed of moss, small twigs, and the stalks of grass, interwoven with wool and lined with hair and feathers; the eggs are mostly four in number, of a bluish white speckled with purplish red colour. "In winter," says Mr. Selby, "these birds assemble in very large flocks, and descend to the sea-coast, where they continue to reside till spring again urges them to pair and seek their upland haunts."

The Linnet is not more highly prized for the lovely hues of its summer dress than for the sweetness of its simple song, on which account great numbers are annually captured and reared for the purpose of being kept in confinement.

The female does not possess the rich colouring that characterizes the male in summer. Mr. Selby having taken considerable pains to ascertain and point out the various changes which this bird undergoes, we take the liberty of availing ourselves of his very accurate description.

"Bill deep bluish grey; forehead and breast of a bright carmine red; throat and under part of the neck yellowish white streaked with brown; crown of the head, nape, and sides of the neck bluish grey, in many instances varied with a few darker streaks; back, scapulars, and wing-coverts chestnut brown, with the margins of the feathers palest; flanks pale brownish red; middle of the belly and the vent greyish white; quill-feathers black, with more or less white on the basal half of their webs, and forming a distinct bar across the wings when closed; tail considerably forked, with the two middle feathers wholly black and pointed; the rest black, margined both on their inner and outer webs with white; legs and toes brown.

"In younger individuals the red upon the breast and head is not so pure in tint, nor to the same extent as in the older birds; the grey upon the crown of the head and the neck is also more varied with spots and streaks."

The female is inferior in size to the male, and has the "head and upper parts of the body umber brown, the margins of the feathers passing into yellowish brown; wing-coverts chestnut brown; throat and sides of the neck yellowish white, streaked and varied with yellowish brown; breast and flanks pale reddish brown, streaked with umber brown; middle of the belly yellowish white.

"The winter plumage of the male (after the first year) is nearly as follows: crown of the head varied with large black spots, which occupy the centre of the feathers; back and scapulars chestnut brown, but deeply margined with pale yellowish brown; breast reddish brown, with the tips of the feathers reddish white; flanks with large oblong brown streaks."

We have figured a male and female of the natural size.



MOUNTAIN LINNET OR TWITE.
Linaria montana, (Ray).

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Billmeyer.

MOUNTAIN LINNET, OR TWITE.

Linaria montana, Ray.

Le Gros-bec à gorge rouse ou de Montagne.

THE Twite, although possessing a longer tail than the Linnet, has a more delicate contour of body, and is, we think, a more diminutive bird: in this respect, however, our opinion is not in accordance with that of Mr. Selby, who states, "It is rather larger than the Common Linnet, being bulkier in the body and having a longer tail." It differs from the Redpole in its larger size and in the total want of that rosy red colour which characterizes the crown of the head and breast of that species during summer. The changes to which the Twite is subjected, although quite apparent to the ornithologist, are nevertheless of a less striking character than in any other species of the genus *Linaria*. The specimen from which our figure was taken is in the plumage of the breeding-season; in autumn and winter they are lighter in colour, and more tawny on the face and throat. In its general economy and food the Twite is very similar to the Linnet, in whose company it migrates southward when the more northern countries become frozen. During these migrations every portion of our island is visited, and great numbers are captured by the bird-catchers while in pursuit of the more favourite Linnet and Goldfinch.

The Twite is abundantly dispersed over the northern portions of Europe, even within the regions of the arctic circle; the high and mountainous districts of these countries constitute its favourite residence and breeding-place, and are, indeed, its true habitat. It also passes the summer, but in smaller numbers, on the uplands of Scotland, the Western, Orkney, and Shetland Islands. "The nest," says Mr. Selby, "is placed amidst the tops of the tallest heath, and is composed of dry grass and heather, lined with wool, fibres of roots, and the finer parts of the heath; and the four or five eggs it contains are of a pale bluish green colour, spotted with pale orange brown. It leaves the mountains in autumn, assembling in flocks, which associate and travel with the Common Linnet, and are taken with them by the London bird-catchers, who can readily distinguish when there are any *Twites* in a flock by their peculiar note, expressive of that word."

In the colouring of their plumage, the only difference between the sexes consists in the female wanting the pink mark on the rump; but in size she is somewhat more diminutive than her mate.

Bill pale yellow; crown of the head and upper surface, with the exception of the rump, which is reddish pink, dark brown, each feather being edged with yellowish buff; throat, face, and stripe over the eye buff; flanks and under surface greyish brown, each feather having a darker centre; primaries and tail blackish brown, each feather having the external edge white; tarsi dark brown.

The Plate represents an adult male in summer, of the natural size.



MEALY REDPOLE.
Linaria canescens; (Mhi).

MEALY REDPOLE.

Linaria canescens, Mihi.

IT is not without due reflection and the examination of a great number of specimens that we are induced to consider this bird as truly distinct from the Lesser Redpole; although, it must be confessed, that to a casual observer little would appear to distinguish it from that bird. Independently of a marked superiority in size, its conspicuous greyish white rump, the broad band across the wing, the lighter stripe over the eye, and the general paleness and mealy appearance of the plumage at once tend to bear us out in our opinion, the more so as these circumstances are not accidental, but occur regularly in all the individuals which we have had opportunities of examining. In our views on the subject we are borne out by the concurring opinions of many ornithologists of the present day who are deservedly eminent for the closeness and accuracy of their researches. The practical bird-catchers in the neighbourhood of London have no doubts on the subject, but have ever been in the habit of regarding the Mealy Redpole as truly distinct. They also assert that it differs from the Lesser Redpole in its habits, manners, and in the situations it frequents; and that during some winters it is so scarce as seldom to be taken, while at others it is so abundant that flocks of hundreds are frequently seen. About the year 1829 it was particularly abundant and was taken in great quantities, but since that period it has occurred in far less numbers, so much so that only one or two have been latterly taken by any one person during the season. Whether this species is truly a native of Europe, or whether those which occur in our island are arrivals from the northern portions of the American continent, is a matter of doubt; true it is, that the specimens brought home by Dr. Richardson, which furnished the descriptions given in the *Fauna Boreali-Americana*, are strictly identical with the bird before us. A further knowledge of this bird, and especially of the changes which it undergoes, will at a future period determine whether the specific term of *canescens* must eventually stand or fall.

The Plate represents an adult, taken in the month of October, of the natural size.





LESSER REDPOLE.
Linaria minor; (Ray).

Engraved from a rare & on Stone by J. & E. Gould.

Printed by C. Bullock.

LESSER REDPOLE.

Linaria minor, *Ray*.

Le Gros-bec sizerin.

THE Lesser Redpole is a native of the northern portions of our island and all the higher latitudes of the adjacent continent; from these districts numbers migrate southwards on the approach of winter, spreading themselves over every part of England, and most of the southern districts of Europe. In habits and manners it is gregarious, and is often found in the company of Linnets and Aberdevines. Its food consists almost exclusively of the seeds of various plants and shrubs, giving a decided preference to those of the alder, hazel, and willow; hence it resorts habitually to low and swampy situations, where its favourite food abounds. In habits and manners it is lively and active, and displays the greatest agility and address in picking out the seeds and buds of the smaller branches; nor is it less to be admired for its great docility and tameness, being at all times captured without any difficulty, and soon becoming familiar. The song of the Redpole, though not loud, is nevertheless simple and agreeable. It is found to breed in tolerable abundance in Scotland and in the northern portions of Europe. Its nest, which is particularly neat and compact, is placed in a low bush of willow, alder, or hazel, and sometimes furze, and is composed of grass and moss intermixed with the down of the catkins of the willow; the eggs are four or five in number, very small, and of a pale bluish green spotted with orange.

The beautiful rosy tints which pervade the breast of the male during the whole of the summer, render this little favourite one of the most elegant of our native finches. We may here remark, that when in a state of captivity, it loses the livery of summer, and does not regain it on the approach of the same season as it would do in a state of freedom, a circumstance which should render us cautious in drawing any conclusions respecting the changes of the plumage of birds from those that are kept in confinement. The female does not at any season acquire the fine tints which characterize the male during spring and summer.

The young of both sexes during the first autumn resemble the female, and do not require any further description than to say that the entire colouring is somewhat more tawny, and the rump only slightly tinged with rosy red.

In summer the adult male has the tip of the bill black, with the base of both mandibles fine horny yellow; space between the bill and the eye, the chin, and throat blackish brown; crown of the head and rump blood red; neck and breast rosy red, inclining to carmine, but becoming less pure on the flanks, which are slightly streaked with brown; middle of the belly, vent, and under tail-coverts white; the whole of the upper plumage tawny brown, each feather having a darker centre; primaries dark hair brown edged with yellowish white; tail brown, each feather having a lighter edge.

The Plate represents an adult male and female of the natural size.



SERIN FINCH.
Serinus flavescent.

Genus SERINUS, *Mihi*.

GEN. CHAR. *Beak* much abbreviated, convex, and blunt at the tip; the edges of the upper mandible somewhat inflected, as are those of the under at the base, as far as the angle, which is not very decided. *Nostrils* basal and partly hidden by small feathers. *Wings* reaching half way down the tail, and having the first four feathers nearly equal, the second being the longest. *Tail* deeply forked. *Toes* feeble; the inner the same length as the hind one. *Nails* small.

SERIN FINCH.

Serinus flavescens, *Mihi*.

Fringilla Serinus, *Linn*.

Le Gros-bec Serin ou Cini.

It must not be supposed that we are partial to the construction of new genera (which, we fear, is often done somewhat unnecessarily,) because, in the present instance, we have removed the bird before us from the systematic station it has hitherto occupied: the fact is, that on investigating its characters, we could not satisfy ourselves that the Serin Finch has been hitherto assigned to any genus with which it strictly agrees. Closely resembling the Siskin (*Carduelis spinus*,) in general form and colouring, it departs widely from that bird in the form of its beak, which, on the other hand, is neither that of *Coccothraustes* nor of *Fringilla*. Remarkable for its short, blunt, and equally convex form, as well as for being peculiarly small, it has some similarity to the beak of the Bullfinch, but wants the breadth and great lateral protrusion and roundness at the tip, which in that bird both the upper and under mandibles so preeminently display: besides which the style of plumage is also totally dissimilar. We trust that in these views we shall be borne out by the assent of other naturalists, to whom we submit our opinions with due deference.

The native habitat of the Serin Finch is limited to the southern portion of the European continent, where it is very abundant, especially in Italy, and the South of France and Germany, frequenting the borders of streams, where willows and alders afford it shelter. It is also common in copses and orchards, where it breeds, making its nest, which is of small dimensions, in low trees and bushes, of vegetable fibres and grasses lined with wool. The eggs are five in number, marked at the larger end with brown dots on a white ground. Its food, like that of the Finches in general, consists of seeds, such as hemp, plantain, &c.

The sexes differ in plumage, that of the male being distinguished by the greater predominance of rich yellow; it may be thus described:

Forehead, throat, circle round the eyes, breast, and rump fine yellow; back of the head and upper surface greenish olive dashed longitudinally with dusky brown; ear-coverts dusky olive; flanks olive grey with stripes of brown; abdomen white; quills and tail blackish brown; irides dark brown.

The female, with which the young male agrees very closely, wants the yellow forehead, and her chest is dull yellow, thickly spread over with longitudinal dashes of brown; the upper surface is less bright than in the male, and the rump has only a trace of the fine yellow.

We have figured a male and female of the natural size.



GOLDFINCH.
Carduelis elegans, (Steph.)

Genus CARDUELIS.

GEN. CHAR. *Bill* conical, longer than deep, compressed anteriorly, and drawn to a very acute point; culmen of each mandible narrow; tomia of the upper mandible angulated at the base, and slightly sinuated. *Nostrils* basal, lateral, and hidden by incumbent bristles. *Wings* of mean length; the first quill-feather rather shorter than the second and third; which are nearly equal, and the longest of all. *Tail* rather short and forked. *Legs* having the tarsi short; lateral toes of equal length. *Claws* curved and acute; hind toe tolerably strong, with the sole broad.

GOLDFINCH.

Carduelis elegans, Steph.

Le Gros-bec Chardonneret.

THE present beautiful species, with one characterized by us from the Himalaya mountains under the name of *Carduelis caniceps*, and an undescribed species from China, should form, we conceive, a restricted genus, from which we would exclude the Siskin and several others which have hitherto been associated in the genus *Carduelis*.

The European continent appears to be the utmost range of the Goldfinch: it gives preference to high lands and mountainous districts during winter, particularly such as are wild and barren, and afford a plentiful supply of the thistle, plantain, &c., the seeds of which constitute its favourite food: at this period it is generally to be observed congregated in small flocks, flying through the air and suddenly settling among its favourite food. When the spring advances and the trees display a verdant appearance, the Goldfinch separates in pairs, each male taking a mate and quitting the wild and open country for woods, orchards, and gardens, and on the Continent to the rows of fruit-trees that border the road-side. As soon as the foliage becomes dense enough to conceal the nest, the task of incubation is commenced: the nest is placed in the fork of a branch, and is of the neatest construction, being composed of lichens, moss, and dried grasses, lined with hair, wool, and the seed-down of the willow and thistle; the eggs are four or five in number, of a bluish white spotted over with dashes of brown towards the larger end.

The sexes are so nearly alike in the colour of their plumage that the duller tints of the female are the only difference. The young, until the first change, are characterized by a plumage very different from that of the parents, the head being greyish brown, and having none of those beautiful and contrasted markings of scarlet and black which so strikingly ornament the adult: in this state of plumage they are termed Branchers by the London bird-catchers, by whom thousands are annually caught and caged for sale. The traffic in these birds and the adults, which are taken at every season of the year, forms no inconsiderable trade, although it must be acknowledged that the bird is more to be valued for its beauty than for its song, which is very inferior to that of the Linnet or Canary.

The adult has the forehead and cheeks rich orange scarlet; a black line passes from the base of the beak to the eye, the top of the head, and occiput, the latter having a white space between it and the scarlet of the cheeks; back and sides of the chest olive brown; wings black, each feather being tipped with white, and the centre crossed by a bright band of yellow; tail black tipped with white; under surface greyish white; beak horn-colour; legs and feet flesh-colour.

In the young the whole of the head, back, and sides of the chest are greyish brown; the wings resemble those of the adult, except that the band of yellow is neither so broad nor so bright, and the markings on the wings are brownish white instead of pure white.

The Plate represents an adult and a young bird of the natural size.



SISKIN OR ABERDEVINE.

Carduelis spinus, (Steph.).

SISKIN, OR ABERDEVINE.

Carduelis spinus, Steph.

Le Gros-hec tarin.

THE mild and docile disposition which this lovely little bird evinces while in captivity, in unison with its tame and harmless manners in a state of nature, secure for it a more than usual degree of friendship and interest. It is not in the cheerful month of May, when all nature is alive to the harmonies of our newly arrived summer visitors, and when the freshly emerged foliage of our woods and gardens presents a universal nosegay, that the little emigrant before us is to be observed; for at that time it has bidden us farewell, to visit more northern climes, whither it has retired for the purpose of breeding and rearing its young. Its native habitat appears to be the higher regions of the European continent, and it is only in its most northern portions that it has, with any degree of certainty, been known to incubate. M. Temminck states that it is found in Sweden, but not in Siberia, and that it passes periodically into France and Holland. At the close of autumn, in the month of November, when the groves are deserted by our southern visitors, who no longer find their wonted sustenance of fruits and insects, the Siskin migrates from its summer retreat again to visit its favourite localities till the following spring.

Most authors have enumerated the Siskin among the rarities of our native birds; on the contrary, there are few more common and few more universally dispersed, particularly where birch and alder abound. It seems to evince a great partiality for these trees, which generally grow by the sides of small streams and in low marshy lands: in such situations the Siskin may be observed in considerable flocks, often in the company of the Lesser Redpole, which it greatly resembles in its actions, feeding on the tender buds and seeds of the alder, and clinging to the outermost branches, much in the manner of the Tits, although compared with them it is much less expert and lively. We have never seen the Siskin feeding on the seeds of the thistle, dandelion, or other plants which form the principal sustenance of its nearly allied congener the Goldfinch, nor is its bill so perfectly adapted for procuring food of this peculiar nature, this organ being more abbreviated and less conical: the bird has also a much shorter tarsus.

Although we do not admit the propriety of separating the present, with one or two other nearly allied European species, and also several from other parts of the globe, from the Goldfinch, the type of the genus *Carduelis*, nevertheless we may mention, that the slight variation of form alluded to has a great influence over their natural habits and economy.

So much is the Siskin esteemed for its mild and docile disposition and pleasing song, that it is highly valued for the aviary, and indeed is yearly captured in considerable numbers, and sold in London, either for the purpose of pairing with Canaries or Goldfinches, or to be shut in a solitary prison to serenade the ears of some tenant of the garret.

The plumage of the sexes differs considerably. The male has his markings and colouring more contrasted and bright during summer: the black then becomes more pure and distinct, and the sides and under parts more vivid.

Much contradiction exists respecting the places the Siskin chooses for nidification. M. Temminck states that it constructs its nest on the highest branches of the pine, and in such a situation were nests seen by Sir W. Jardine and Mr. Selby near Killin: it is now ascertained to breed in some of the pine forests of the Highlands of Scotland. The eggs are four or five in number, of a pale blueish white, speckled with purplish red.

The male has the top of the head and throat black; over each eye runs a broad stripe of yellow; the back of the neck, back and shoulders of a yellowish olive, with longitudinal patches of brown; the lower part of the throat, chest and belly yellow; the thighs and vent grey, with elongated stripes of brown; a band of yellow across the wings, which are black; the outer edge of the quill-feathers slightly margined with yellow; the tail-feathers yellow at the base, and black at the extremities; bill light brown.

The female differs from the male in the absence of the black on the head and throat, and the fine yellow which pervades the breast, that part being grey, with longitudinal stripes of dark brown; in the whole of the upper surface being darker, and in the fine yellow at the base of the tail being almost wanting.

The Plate represents a male and female of the natural size.



CITRIL FINCH.
Carduelis citrinella.

Drawn from Nature & on Stone by J. E. Gould.

Printed by C. Holloman & Co.

CITRIL FINCH.

Carduelis Citrinella.

Le Gros-bec venturon.

IN its lengthened and conical bill, the Citril Finch offers a strict alliance to the beautiful Goldfinch so common in our island, whilst in the olive-yellow colouring of its plumage it is in close affinity with the Siskin or Aberdevine, and, as far as we have been able to ascertain its habits and manners, corresponds more with the latter than the former. Like the other members of its family, it is said to be a fine songster. It has never yet been seen wild in England or in the North of Europe; appears to be scarce in the central parts of France, and the southern portions of Germany; is more common in Switzerland and the Tyrol; and is very abundant in Greece, Turkey, Italy, and Spain: in all these countries it evinces a partiality to the high and mountainous districts covered with larch and fir, on the branches of which it builds its nest. It is said to lay four or five eggs, of a whitish colour, marked with numerous blotches of brown of various sizes. Its food consists of the seeds of the various plants that grow in alpine regions. Like most species of this genus the sexes of the Citril Finch offer but a slight difference in the colouring of their plumage.

The male has the face, crown of the head, throat and under surface greenish yellow inclining to olive; the occiput and back part of the neck grey; the rump, scapularies, and a bar across the wings, fine yellow with a tinge of green; the primaries, secondaries, and tail-feathers blackish brown, each feather being edged with greyish olive; legs brown; irides hazel.

The female is rather less in size, and her colours are not so vivid as in the male, particularly on the throat and under surface, which parts are grey instead of greenish yellow.

The Plate represents a male and female of the natural size.



HAWFINCH.
Coccothraustes vulgaris, (Briss.).

Genus COCCOTHAUSTES, *Briss.*

GEN. CHAR. *Beak* very stout, swollen, thick ; the *upper mandible* straight, entire.

HAWFINCH.

Coccothraustes vulgaris, *Briss.*

Le Gros-bec.

THE Hawfinch appears to have an extensive range through the countries of Europe, especially its midland districts. In the British Isles it has until lately been regarded as a bird of considerable rarity, and principally as a winter visitor. Of late years it has certainly been more common, and we are inclined to suspect that this will be found to support an opinion we have long since formed, that certain birds which have for a number of years been scarce, suddenly become numerous and continue so for an indefinite period, when they again retire and are as scarce as before. It is not in the present bird alone that we have observed this singular phenomenon ; we may instance for example the Godwits, of which the Black-tailed species, a few years ago, was so abundant in the London market as entirely to exclude the Bar-tailed, which has now taken the place of the former. Our much-esteemed friend Mr. Henry Doubleday, of Epping, has by his ardent research in British Ornithology made us better acquainted with the history of this bird than any other person. "The Hawfinch," says he, "is not migratory, but remains with us during the whole of the year : " and he assigns as a reason for its not being more frequently discovered, the fact of "its shy and retiring habits leading it to choose the most secluded places in the thickest and more remote parts of woods and forests ; and, when disturbed, it invariably perches on the topmost branch of the highest tree in the neighbourhood." Epping Forest, where Mr. Doubleday discovered it breeding in considerable abundance, affords, from its solitude, a place at once congenial to its habits and retiring disposition.

We have known the Hawfinch to breed at Windsor, and a few other places ; but certainly nowhere so abundant as on the estate of W. Wells, Esq., at Redleaf, near Penshurst, Kent, who lately informed us that he has, with the aid of a small telescope, counted eighteen at one time on his lawn. M. Temminck informs us that it evinces a partiality to mountainous districts, and that it is a bird of periodical passage in France, but irregularly so in Holland.

Its food consists of berries, seeds, and the kernels of stone-fruits, for the breaking of which its strong beak and the powerful muscles of the jaws are expressly adapted. In winter, its principal subsistence is the Haw, whence its common appellation.

According to Mr. Doubleday, this bird breeds in May and June ; in some instances in bushy trees at the height of five or six feet, and in others near the top of firs, at an elevation of twenty or thirty feet ; the nest is remarkably shallow and carelessly put together, being scarcely deeper than that of the Dove ; in materials it resembles that of the Bullfinch, but it is by no means to be compared to it in neatness and compactness of construction ; it is chiefly formed of sticks, interspersed with pieces of white lichens from the bark of trees, and is loosely lined with roots : the eggs are from four to six in number, of a pale greenish white, varying in intensity, spotted and streaked with greenish grey and brown.

The young birds before the moult, exhibit considerable difference in plumage from the adult : the throat, cheeks and head being of a dull yellowish colour with the under parts white, the flanks marked with small streaks of brown, and the general plumage of the upper parts being spotted with dirty yellow.

In the male, the beak and feet in winter are of a delicate flesh brown, the former becoming in summer of a clear leaden blue, the ends straw-colour, and in some instances white ; the top of the head, the cheeks and rump of a chestnut brown ; a narrow circle round the beak, and a broad patch on the throat are black ; back of the neck ash-coloured ; mantle and shoulders deep brown ; the quills and secondaries, which latter appear as if cut off abruptly at their ends, are of a deep black with purple and violet reflections ; most of the greater and the last row of the lesser wing-coverts are white, so as to produce a large central mark ; the outer tail-feathers are blackish brown, the middle ones white on their outer and brown on their inner edges ; the under parts of a light vinous red.

The female has the plumage of a paler hue, the white of the wing being more dull, the head more dusky, and the under parts less pure.

We have figured a male and female of their natural size.



GREEN GROSSBEAK.
Coccothraustes chloris, (Flem.).

GREEN GROSBEAK.

Coccothraustes chloris, *Flem.*

Le Gros-bec verdier.

THE Green Grosbeak is abundantly dispersed over the whole of Europe, where it is strictly indigenous, and as far as our observation has gone is nowhere migratory. Its natural habits lead it to frequent gardens, orchards, shrubberies and cultivated lands, and it is one of the most familiar and docile of our native birds; its outspread wings and tail during flight attracting the eye with colours which are scarcely surpassed in beauty by any one of the *Fringillidæ*. When spring has clothed the vegetable world with foliage, the Green Grosbeak constructs its nest on a branch in the most leafy part of shrubs or hedgerows, often at a considerable distance from the ground, the nest being generally composed of leaves, moss, grass and small twigs, lined with wool, hair and a few feathers. The eggs are four or five in number, of a pale blueish white, speckled at the larger end with reddish brown. The young are distinguished from the adult during the greater part of the first autumn by the strong oblong dashes of brown which pervade the breast and under surface. This particular feature, together with the robust bill, short tail, and bulky body, characterizes it as a true Grosbeak (*Coccothraustes*), at the extreme limits of which genus we consider this bird should be placed, where it would appear to form a union with the true species of *Fringilla* as restricted by authors of the present day.

At the commencement of autumn the Green Grosbeak assembles in considerable numbers, with Chaffinches and Buntings, and being driven by the severities of the season from fields and gardens, retires to farm-yards, where a bountiful supply of grain yields it a subsistence.

The male differs from the female in having the plumage more brilliant, and by rather exceeding her in size.

The male has the whole of the upper surface of a bright olive-green, passing into yellow; the quills blackish grey with their outer webs bright gamboge yellow; the tail-feathers, with the exception of the two middle ones, which are grey margined with light yellow, and their exterior edges, which are greyish brown, are of the same fine gamboge yellow as the wings; under parts greenish, passing into sulphurous yellow; legs brown; bill white with a tinge of pink.

Our Plate represents the adult male, and young bird of the first autumn, of the natural size.



FARROT CROSSBILL.
Loxia pityopsittacus; (*Bechst.*)

Genus LOXIA.

GEN. CHAR. *Beak* moderate, strong, compressed, the two mandibles equally curved, hooked, and crossing each other at their tips. *Nostrils* basal, round, concealed, under hairs directed forwards. *Toes* three before and one behind, the former divided. *Wings* moderate, the first quill-feather longest. *Tail* forked.

PARROT CROSSBILL.

Loxia pityopsittacus, *Bechst.*

Le Bec-croisé perroquet.

THE Crossbills, although evidently allied in their general habits to the Pine Grosbeak (*Corythus enucleator*, Cuv.), exhibit many circumstances in their general œconomy which are as yet far from being satisfactorily understood. The rigorous climate of the regions they frequent, and the deep seclusion of the pine groves where they find food and shelter, alike prohibit the naturalist from minutely inspecting them throughout every portion of the year: hence, though it is well known that the plumage of every species undergoes singular and contrasted changes, still it is yet a matter of doubt whether these changes are the result of a double moult, or produced by a change of colour in the feathers themselves from one tint to another, the moult being but single. Capable of bearing extreme cold, it is only in the highest northern latitudes that they breed in spring or summer, building their nests and breeding in our temperate latitudes in the inclement season of winter, and returning, as spring comes on, to their retreats within the arctic circle.

Of this genus the Parrot Crossbill is one of the rarest. In England it has been taken so seldom, as scarcely to claim a place among our accidental visitors. In Poland, Russia and Germany it is a bird of passage, being spread throughout the pine forests in winter, and returning northwards with the return of spring. In France and Holland its visits are accidental.

The Parrot Crossbill may be considered as the type of the limited genus to which it belongs,—a genus at once distinguished by the singular formation of the beak, the curved mandibles of which cross each other so as to produce an appearance of having been unnaturally distorted. This mode of construction, however, is a wise provision of nature, for the purpose of enabling the bird to separate the hard scales of the fir-cones covering the seeds which constitute its principal subsistence. These seeds it obtains by bringing the points of the mandibles from their crossed position and placing them in apposition. The points thus brought together are insinuated between the scale and the body of the fir-cone, and the mandibles are then separated by a powerful muscular lateral effort. The seed is at the base of the inner side of the scale, and is removed by the hard tongue of the bird while the scale is held apart from the cone. In the present species the bill is strong, large at its base, and much crooked; in the other species its structure is more slight and the curve of the mandibles less decided.

According to M. Temminck, the colouring of the male in its adult state consists principally of greyish olive; the cheeks, throat and sides of the neck ash-coloured; on the head there is a number of brown dashes bordered with dull greenish; the rump is yellowish green, as are also the breast and under parts, but with a shade of grey; the sides are dashed with blotches of dark grey; quill- and tail-feathers dark brown edged with greenish; irides and tarsi brown; beak dark horn colour.

The young males of the year are greenish brown with dashes of brown on the head and back; the under parts whitish grey with longitudinal spots of brown; rump and tail-coverts tinged with green. After the first moult, to the age of a year, the plumage exhibits a singular change, being of a beautiful crimson red, more or less pure, as M. Temminck states, according as the individual approximates to the period of the second moult, which occurs in April or May, when the quills and tail-feathers are black edged with reddish. It is however, we suspect, still doubtful whether this state of plumage is indeed that of winter or of an immature condition: if so, it is not a little remarkable that in this respect the birds of this genus should form an exception to the general rule which gives the richest hues to maturity and the season of love.

The female differs little from the plain-coloured young males of the year. The upper parts are greenish grey with dashes of brown; the rump yellowish; the under parts ashy with a slight tinge of green passing into white towards the vent and under tail-coverts.

The figures in the Plate are of the natural size, and represent the variations in colour common to this species.



COMMON CROSSBILL.
Loxia curvirostra, (Linn.)

COMMON CROSSBILL.

Loxia curvirostra, Linn.

La Bec croisé commun, ou des Pines.

ALTHOUGH the Common Crossbill frequently visits our island in large numbers at opposite seasons of the year, it can scarcely be considered as a permanent resident; a few isolated instances, it is true, are on record of its having bred with us, but its natural habitat is undoubtedly the high northern regions of the old continent. Mr. Selby informs us that in the year 1821 immense flocks visited this kingdom and scattered themselves among the woods and plantations, particularly where fir-trees were abundant. "Their first appearance was early in June, and the greater part of the flocks seemed to consist of females and the young of the year (the males possessing the red plumage assumed from the first moult to the end of that year). Many of the females I killed showed plainly, from the denuded state of their breasts, that they had been engaged in incubation some time previous to their arrival; which circumstance agrees with the account given of the early period at which they breed in the higher latitudes. Since this period Crossbills have repeatedly visited us, but never in such numbers as in 1821."

We may here observe that in the minds of many naturalists some doubts still exist, and until lately in our own, as to whether the rich rosy red colouring assumed by this bird is characteristic of the breeding-season or the permanent livery of the adult male. During our recent visit to Vienna, we had an opportunity of observing both sexes in every stage, an examination of which afforded us abundant proofs that the red plumage is acquired during the first autumn, for we saw many lately fledged that had their plumage thickly spotted; others, that had partially lost their spotted appearance, and had partly assumed the red colouring; and others that had their feathers entirely tinted of this colour: while the adults were, as most ornithologists have stated, characterized by a plumage of olive green, which appears to be permanent. In the bird-market of Vienna multitudes of Crossbills are exposed for sale, with Swallows, Martins, and many others of the smaller birds, for the purposes of the table: of these the Crossbill appeared to be especially in request, doubtless from its superiority of size, and from the nature of its food rendering its flesh both sweet and well tasted, to the truth of which we ourselves can bear testimony.

The nest of the Crossbill is placed in the fork of the topmost branches of the fir and other trees, and is composed of moss and lichens, generally lined with feathers: the eggs are four or five in number, of a greyish white marked at the larger end with irregular patches of bright blood red, the remainder minutely speckled with the same colour. Its note is a kind of twitter, uttered while occupied in extracting the seed from the fir cone which constitutes its principal food, and for obtaining which its bill is expressly adapted. The fruit of the orchard is sometimes attacked by this bird, when they commit considerable devastation among the apples and pears by splitting them asunder for the sake of the seeds within. Among the branches it is extremely active and agile, clinging in every possible direction by means of its bill and claws, like the members of the genus *Psittacus*.

Of all the small birds, the Crossbill seems to be the least distrustful of man, and when flocks arrive in our island it is well known that numbers are taken by means of a birdlimed twig, attached to the end of a fishing-rod placed across their back.

The green plumage referred to above resembles so closely that of the adult Parrot Crossbill, that any lengthened description will be unnecessary; nor, after what has been said above, do we consider it requisite to give any further account of the young.

Our Plate represents an adult and a young bird of the year, of the natural size.



WHITE WINGED CROSS BILL.

Loxia leucoptera; (Gmel.)

Drawn from life and on stone by J. B. G. G. G.

Printed by C. H. H. H. H.

WHITE-WINGED CROSSBILL.

Loxia leucoptera, *Gmel.*

THIS interesting species is considered to be entitled to a place in our catalogue of British Birds, a specimen having been shot within two miles of Belfast, in the month of January 1802, which circumstance stands recorded in the Transactions of the Linnean Society. We are not aware that any other instance of the occurrence of this species has been noticed in this country, and M. Temminck has not included it in his Manual of the Birds of Europe.

We are indebted for all we shall have it in our power to say of this species, to the various authors who have supplied us with histories of the ornithological treasures of North America, over nearly the whole of which vast continent it ranges during the summer; and it is therefore extraordinary that it should not have been found oftener in the analogous climates of the old continent.

“We can trace the White-winged Crossbill,” says the Prince of Musignano, in his scientific continuation of Wilson’s valuable work, “from Labrador westward, to Fort de la Fourche, in latitude 56°, the borders of Peace River, and Montague Island on the north-west coast, where it was found by Dixon. Round Hudson’s Bay it is common and well known. It is common also on the borders of Lake Ontario, and descends in autumn and winter into Canada, and the northern and middle States.”

Dr. Richardson found this bird inhabiting the dense white-spruce forests of the fur-countries, feeding principally on the seeds of the cones. It probably ranges as far as the 68th parallel, where the woods terminate, though it was not observed higher than the 62nd. In the countries where they pass the summer, they are seldom observed elsewhere than in pine swamps and forests, feeding almost exclusively on the seeds of these trees, and a few berries. They build their nest on the limb of a pine, towards the centre; it is composed of grasses and earth, and lined with feathers. The female lays five eggs, which are white, with yellowish spots. The young leave their nest in June, and are soon able to join their parents in their autumnal migrations. In September they collect in small flocks, and fly from tree to tree, making a chattering noise, and in winter they retire to the thickest woods of the interior. Like the other species of this genus, the subject of our Plate is liable to many changes of plumage which are not yet perfectly understood; every flock containing specimens of great variety of colours, from the general green appearance of the females, to the buff orange tinge which is by some considered to be characteristic of the adult male. Very young males before assuming the red at the age of one year, exactly resemble the females; being only more inclined to grey, and less tinged with olive, and having the rump greenish yellow. The male in his second year has the general plumage crimson red, the base of each feather darker, approaching to black on the head, round the eye and on the forehead; the rump a beautiful rose red. The adult male differs from the preceding, in having a light buff orange tinge where the other is crimson; pale beneath; wings and tail deep black, the two bars on the wings, the edges of the quills and tail-feathers being very conspicuous and pure white. In this state the bird is rare.

In the female the general tint is a greyish olive, the base of each feather slate colour, and the centre black, giving the bird a streaked appearance; the rump pale lemon colour; neck, throat and breast yellowish olive grey, the lower part of the belly also patched with black; wings and tail brownish black; middle and long coverts of the former broadly tipped with white, forming a double band across, so conspicuous as to afford the most obvious distinguishing character of the species; all the quills are slightly edged paler; irides hazel; bill dark horn colour; legs nearly black.

We have figured a male and female.



PINE GROSBEEK.
Corythus enucleator, (Guv.)

Genus CORYTHUS, Cuv.

GEN. CHAR. *Beak* short, hard, thick, rounded in every part and slightly hooked at the point. *Nostrils* basal, lateral and rounded, covered with thickly set hair-like feathers. *Tarsi* short. *Toes* entirely divided. *Wings* more lengthened than in the genus *Pyrrhula*. *Tail* moderate and slightly forked.

PINE GROSBEEK.

Corythus eneucleator, Cuv.

Le Bouvreuil durbec.

THE Pine Grosbeak, hitherto classed among the Bullfinches, has been separated by Cuvier and advanced to the rank of a genus under the name of *Corythus*, which, as will be readily perceived, has characters sufficiently strong to warrant its legitimacy. The situation which this genus appears to hold is that of the connecting link between *Loxia* on the one hand and *Pyrrhula* on the other; agreeing with the former in its place of resort, habits, manners and style of colouring, and with the latter in the short and rounded beak.—The Pine Grosbeak, though not strictly a native of Great Britain, has been several times killed in our Island. Its true habitat appears to be within the Arctic Circle of both Continents, and we know it to be abundant in Norway, Sweden and Russia, inhabiting the secluded recesses of the almost untrodden pine forests of those countries, where it feeds upon the seeds of pine cones, as well as various kinds of other seeds and wild alpine berries. In the more southern provinces of Europe it appears to be merely an accidental visitor, and is rarely met with even in the North of Germany.

In another point also we trace a similarity between this bird and the Crossbill;—viz., in the changes which its plumage undergoes, passing, according to the seasons, from greenish yellow to a scarlet more or less pure. In the annexed Plate we have given a figure of the male and female in what we consider to be their adult plumage: on this point, however, we differ from M. Temminck, whose description we take the liberty of transcribing.

“The livery of the adult and aged male:

“Head, throat, and upper part of the neck of an orange red, becoming lighter on the fore-part of the neck; the breast and underparts of an orange-yellow; the feathers of the back, scapulars and rump, of a blackish brown in the middle with a large border of orange-yellow; wings and tail black, the former having two transverse white bands; all the secondary feathers bordered with white; quill- and tail-feathers edged slightly with orange; length seven inches nine lines.

“The male after its first moult, till a year old:

“Head, neck, throat, breast, part of the belly and rump, of a crimson red, the more strong and brilliant as the individual approaches its second moult. Feathers of the back and scapulars black in the middle, with a large border of crimson-red; sides, belly, and lower tail-coverts ash-coloured; two roseate bands cross the wings, and the secondary feathers are largely bordered with the same colour: the quill- and tail-feathers are all edged with light red.

“Adult and young female:

“The females of the year have only the top of the head and the rump reddish; when adult, they have those parts of a brown strongly tinged with orange, the back of the neck and cheeks edged with the same colour; the back and scapulars ashy brown; the under parts ash-coloured with a slight tinge of orange; the wings have two bands of greyish white; all the wing-feathers edged with greenish orange.”

Young (females) are more obscure in their colouring. The nest is built on trees at a short distance from the ground; the eggs are white, without spots, and four or five in number.—We have figured a male and female of their natural size.



SIBERIAN GROSBEAK; (Linn).
Corythus longicauda.

Drawn from Nature & on stone by J. E. Gould

Printed by C. Holloman & Co.

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SIBERIAN GROSBEAK.

Corythus longicauda.

Le Bouvreuil à longue queue.

ON comparing our specimens of this bird with others of the Pine Grosbeak, which is the type of the genus *Corythus*, we could not but observe that it offers a closer alliance to this peculiar form than to that of any other to which it has hitherto been assigned; we have therefore, although ever averse to multiplying the names of a species, judged it best to place it in the group to which it appears to us most nearly allied: it is true that the greater length of the tail in this species is not in strict accordance with the characters of *Corythus*, but this would seem to be the only point of difference.

The Siberian Grosbeak is found in the same localities as the Pine Grosbeak, namely, most of the high northern regions of the old Continent, and particularly Siberia, where, as M. Temminck states, it is extremely abundant. In winter it migrates to the more southern parts of Russia and Hungary.

In its general economy it resembles the Pine Grosbeak, and its food is said to consist of wild berries, the buds of trees, and other vegetable matters.

Of its nidification no certain information has been recorded.

As our Plate will show, the sexes are distinguished by the male being clothed in a richer-coloured dress than that of the female; but a still further knowledge of this rare bird is requisite to enable us fully to understand its various changes.

The male is characterized by having a red mark round the bill; the top of the head, cheeks, and throat clear rose red; chest, belly, and rump inclining to crimson; feathers of the back reddish brown in the centre bordered with red; lesser wing-coverts and edges of the secondaries white; primaries dark brown, with the edges lighter; the three lateral feathers of the tail white, the others black bordered with light rose colour; beak and feet brown.

It would appear from M. Temminck's statement that it undergoes a partial change of plumage at the autumnal moult, being then of a much lighter tint, and having all the feathers bordered with whitish. We have seen specimens in this state which strictly agree with M. Temminck's description.

The general plumage of the female is of a clear olive, with the exception of the wings and tail, which are like those of the male. As the specimen which we have figured from, and considered a female, is much more grey in its plumage and has several spots of blackish brown, we have reason to expect that it may be a bird not arrived at maturity.

The Plate represents a male and female of the natural size.



SCARLET GROSBEEK.
Erythropsiza erythrina; (Bonaparte).

SCARLET GROSBEEK.

Erythrospiza erythrina, *Bonaparte*.

Le Bouvreuil Pallas.

HAVING adopted the genus *Erythrospiza* as established by the Prince of Musignano, we feel convinced that the present bird will form one of this well-marked group, the members of which appear to be so widely distributed. The Scarlet Grosbeak must not be confounded with the *Fringilla purpurea* of Wilson, a bird to which it bears a resemblance both in habits and in style of colouring. A close examination of the two species will, however, at once satisfy the ornithologist as it respects their non-identity; and we would further remark, that the present bird appears to be strictly confined to the Old World, while the *Fringilla purpurea* is in like manner restricted to the American continent.

The Scarlet Grosbeak is one of those European birds which are obtained with great difficulty, and of which very few specimens exist in our museums; indeed, except our own, which came from Russia, we know of none in the public or private collections of Great Britain; yet it is a species far from being uncommon in high northern latitudes, and in some parts of Russia, where, according to M. Temminck, it habitually frequents gardens, and appears, from the little information we have been able to obtain respecting it, to differ little in manners from our well-known Bullfinch.

The male and female, as will be seen in the Plate, offer a decided difference in their colouring, the male being ornamented by a beautiful deep stain of scarlet over the whole of the plumage which is totally wanting in the female as well as in the young of both sexes; it is also probable that the male loses this distinguishing mark in winter and regains it in spring.

The male has the head, neck, and top of the back of a lively crimson, fading off below into a beautiful rose colour; the small feathers round the base of the beak and nostrils are also of a dull rose; the wings and tail brown, the feathers being edged with deep rose colour; beak and tarsi brown.

The female has all the upper parts of a brownish grey, with longitudinal dashes of a deeper colour, the throat and cheeks being blotched with brown; the under surface white, or nearly so.

The Plate represents an adult male and female of the natural size.



ROSY GROSBEAK.
Erythropsiza rosea.

Drawn from Nature & on Stone by J. & E. Gould

Printed by C. Hullmandel.

ROSY GROSBEEK.

Erythrospiza rosea.

Le Bouvreuil Pallas.

WE believe we may safely affirm that this beautiful species of Finch is strictly confined to the northern regions of the Old World, and that it is not found, as stated by some authors, on the continent of America. By Wilson it was considered synonymous with the *Fringilla purpurea*, which although bearing a strong resemblance in its general contour and colouring, differs both from it and *Erythrospiza erythrina*, in the form of the bill: the two latter birds have this organ shorter, and more swollen at the sides, approaching in these particulars to the typical *Pyrrhulæ*, or Buffinches.

Russia and Siberia constitute the true habitat of the present species, though it may occasionally be found in Hungary and the more central parts of Europe. It is considered one of the rarest European birds, and is consequently much sought after by collectors. The female is quite unknown to ourselves, and we are not aware of any description of that sex having been recorded.

Head, back, rump, upper tail-coverts, breast, and all the under surface of a rich rosy hue, with a stripe of dark brown down the centre of each of the feathers of the back; crown of the head and the throat ornamented with pinkish white silky feathers; wings brown, the lesser coverts terminated with pinkish white, and the greater coverts with pink, forming two bands across the wing; tail brown margined with pink; bill and feet light yellowish brown.

Our figure is of the natural size.



VINOUS GROSSBEAK.

Erythrospiza? githaginea.
Pyrrhula githaginea, (Temm.)

Drawn from Nature, on Stone by J. & E. Gould.

Engraved by G. Hallman del.

VINOUS GROSBKAK.

Erythrospiza? githaginea.

Pyrrhula githaginea, *Temm.*

Le Bouvreuil githagine.

WE have never been able to obtain more than a single specimen of this rare Little Grosbeak, whose native habitat is doubtless the northern and central portions of Africa: M. Temminck states that it is found in Nubia and Syria, whence it accidentally passes into Provence and other parts of the south of Europe; it is also said to visit the islands of the Archipelago. In his description, and in the figure of this species, published in the 'Planches Coloriées,' M. Temminck has represented the bill and legs as being red; in the specimen from which our figure is taken those parts were light yellow, and it did not appear that this difference had been the effect of time or death, as in that case there would have been faint traces of the red colour still remaining, which there were not. In all probability this bird will require to be separated from the group in which we have placed it; but we have deferred assigning to it new generic characters until further acquainted with the species.

The female is said to differ from the male in the absence of the rich rosy tints which adorn the latter, and in being of a uniform light brown very slightly clouded with a rosy hue; and in the under surface and wings being clear Isabella brown.

The male has all the under surface light brown, clouded with clear rose, which is palest on the throat and round the base of the bill; crown of the head ash, becoming brown on the nape of the neck; back, wing-coverts, rump, and the external edge of the wing and tail-feathers slightly tinged with rose colour.

We have figured a male of the natural size.



BULLFINCH.
Pyrrhula vulgaris; (Temm.)

Drawn from Nature & on Stone by J. E. Gould.

Printed by G. B. Hamond.

Genus PYRRHULA.

GEN. CHAR. *Bill* very short, and thick at the base; both mandibles convex, particularly the upper one, the point of which overhangs the point of the lower; *culmen* rather compressed and advancing upon the forehead. *Nostrils* basal, lateral, round, concealed by short feathers. *Wings* rather short, the fourth quill-feather the longest.

BULLFINCH.

Pyrrhula vulgaris, Temm.

Le Bouvreuil commun.

THIS handsome bird is the only one of the genus *Pyrrhula*, as restricted by modern naturalists, which has been hitherto discovered in Europe, that is to say, provided we consider the Bullfinch found in Germany and some other parts of the Continent (which in relative admeasurements is nearly a fourth longer,) as a variety merely, and not truly a distinct species. In our examination of this bird, had we been able to detect any difference of markings, or to ascertain that any dissimilarity existed in their habits and manners, we should not have hesitated on the subject; at present we remain in doubt on this point, which those who have an opportunity of examining the bird more closely than ourselves, and in a state of nature, can alone determine.

The interesting little group of which the present species forms a typical example, appears to be confined exclusively to the regions of the Old World, more particularly its northern and mountain districts. The elevated range of the Himalaya has not only produced an additional example, published by us in our work on the birds of that range under the specific title of *erythrocephala*, but we have since received another species from the same locality, and which is at present undescribed: we allude to this fact here, as confirmatory of the justice of separating birds possessing well-defined forms, however limited their numbers may be, into distinct genera, assured that future researches will increase the catalogue of species.

The Bullfinch is a constant resident in our island, although we are informed by continental writers that it is strictly migratory on the Continent generally, over the whole of which, except in Holland, where it is somewhat rare, it is plentifully dispersed. The habits of the Bullfinch are somewhat shy and retiring, giving preference to secluded thickets and coppices.

Its food consists for the most part of berries, seeds, and the buds of trees; hence in the spring no bird is accused of greater mischief in orchards and gardens.

The nest of the Bullfinch is rather loosely constructed, flat in its general form, and composed of small sticks lined with fibrous roots, and wool: it is mostly placed in the forked branches of trees and shrubs. The eggs are four or five in number, of a bluish white spotted with reddish brown. Although not entirely devoid of song, it is by no means remarkable in its wild state for its musical powers: its call note is a plaintive monotonous whistle. In captivity it is much valued, not only for its beauty, but for its powers of imitation, being capable of learning and repeating tunes and even words.

The sexes offer, as the Plate will show, a considerable difference in their colouring.

The male has the top of the head, the circle round the eye, the throat, wings, and tail of a deep glossy black; the back of the neck and mantle ash-colour; the cheeks, neck, chest, and flanks fine red; rump and abdomen pure white; a band of greyish white crosses the wing; the beak and irides black; tarsi blackish brown.

In the female, the red of the chest, neck, and flanks is exchanged for dusky greyish brown; the white of the rump is less conspicuous, and the markings of the head are not so pure and decided.

The Plate represents an adult male and female of the natural size.



STARLING.
Sturnus vulgaris, (Linn.)

Genus STURNUS, *Linn.*

GEN. CHAR. *Bill* straight, depressed, rather obtuse, and slightly subulated. *Nostrils* basal, lateral, and partly closed by a prominent rim. *Wings* long, the first feather very short, the second and third the longest and equal. *Feet* with three toes before and one behind; the middle toe united to the outer one as far as the first joint.

STARLING.

Sturnus vulgaris, *Linn.*

L'Etourneau vulgaire.

THE species formerly arranged under the old Linnean genus *Sturnus* have been separated into several distinct genera, bearing their appropriate characters, and which now form an interesting family, the members of which are very generally dispersed over the globe. The value of such separations is obvious to the Ornithologist, as by a knowledge of the characters of each genus he is at once enabled to ascertain its true situation.

The number of species contained in the genus *Sturnus*, as now restricted, is very limited, and are strictly confined to the Old World; two of these species are natives of Europe.

The Starling is a social and familiar bird, and were it less common would be highly esteemed, its habits and manners, and the variety of its plumage at certain ages and seasons being very interesting. Its range is extensive, being dispersed in considerable abundance over Europe; it is also found at the Cape of Good Hope, and from its being so numerous on the northern coast of Africa, we doubt not that they traverse the whole of that continent. We have received it from the Himalaya Mountains, and have ascertained that it is found as far east as China. It is a bold and spirited little bird, but soon becomes reconciled to confinement, where it not only sings sweetly, but may be taught to articulate words and even sentences. In a state of nature it is very harmless, and renders great service to the farmer, by clearing his pastures and fields from grubs, worms, and various other insects, on which it almost exclusively subsists. When in search of food, it runs along the ground with great celerity, prying and peeping with a cunning eye under every loose sod and tuft of grass.

The Starling congregates in large flocks during autumn and winter, and may be often observed in the company of rooks, daws, and fieldfares. On the approach of evening many of these flocks unite, and before going to roost this immense body may be seen traversing with undulating sweeps and evolutions the immediate neighbourhood of their resting-place. They prefer for this purpose secluded and warm situations, such as thickly set reed-beds, coppices, or plantations of fir. They pair early in the spring, and then spread themselves over the face of the country in search of a convenient breeding-place, some selecting the holes of trees, others old towers and ruins, and others the deserted nests of rooks, &c. They lay four or five eggs of a delicate pale blue. The young during the first autumn are characterized by the stage of plumage represented in the upper bird of our Plate; they begin to change in October, which is effected by a moult, and in the course of a week or two after are adorned with feathers, the whole of which, with the exception of the primaries and tail, are terminated with a large white or reddish white spot; the rest of the feathers being of a rich green with bronze reflections, as in the lower bird of the Plate. From this their spotted plumage they gradually change to that of the centre bird, having a fine yellow bill, and spotless lanceolate feathers upon the breast and underparts,—a state of plumage which is certainly not attained till the third year; and between these two latter stages, birds may be found in the same flock which exhibit plumage in every intermediate state. It may be observed, that as the feathers become elongated the white spot at the tip becomes less and less, till in the old bird it is lost. The males and females at the same age offer but little difference in plumage; the male, however, is generally the most brilliant in his markings.

We consider that these birds breed at a year old, although their plumage, as above stated, afterwards undergoes a considerable change.

The plumage of the old male in spring is peculiarly beautiful, not so much from its variety of colours as from the glossy metallic hues with which it seems burnished, exhibiting ever-changing reflections of purple and golden green; the upper wing-coverts marked with small triangular whitish spots; the lower coverts and the tail slightly edged with white; beak yellow; feet reddish flesh-colour:—the centre figure in our Plate exhibits the bird in this stage.



SARDINIAN STARLING.
Sturnus unicolor, (Marm.)

SARDINIAN STARLING.

Sturnus unicolor, *Marm.*

L'Etourneau unicolore.

THE *Sturnus unicolor* does not possess that wide range of habitat which characterizes the preceding species, the *Sturnus vulgaris*. It is dispersed over the warmer parts of Spain, Sardinia, and the rocky shores of the Mediterranean generally. In these situations it may be observed in small numbers throughout the year, building in the recesses of the rocks, in the absence of which, old towers and ruins offer it an asylum equally suited as a place of repose, and a situation where it may raise its progeny: in fact, its general habits and manners bring it in close connexion with the *Sturnus vulgaris*; and if it is not seen congregated in almost countless flocks, it must be attributed to the limited number of the species, rather than to any difference in manners. We have not, with any degree of satisfaction, been able to trace the extent of the range which this species takes in Northern Africa: it would appear, however, to be somewhat limited, as we have never received or seen it in any collection from that continent, with the exception of Egypt and Abyssinia. On close examination, its plumage presents to the eye many rich and resplendent lights; and if not so gay as our pert and prying Starling, its general contour of body, clothed all over with long silky plumes, fully compensates for the deficiency.

The outward sexual differences are but trifling: the male may be always distinguished by the elongated feathers of the throat, which in fine adults are carried to an extreme, and which are displayed in the most beautiful manner when the throat is distended by their simple whistling strain.

The young birds bear so close a resemblance to the young of the common species, that a description will be unnecessary; if any difference exists, it is that the prevailing colour is darker.

The moult of the first autumn is characterized by the feathers being slightly tipped with white, which is totally lost in the following spring.

The adult male has the whole of the plumage of the body, wings and tail of a shining black, which is enlivened by reflections of purple and violet; beak blackish brown at the base, the point yellow; feet light brown.

The Plate represents a male and female in the adult livery and of the natural size.



ROSE COLOURED PASTOR.
Pastor roseus (Temm^k).

Genus PASTOR, Temm.

GEN. CHAR. *Bill* conical, elongated, cutting, very compressed, slightly curved, the point notched.

Nostrils basal, ovoid, partly closed by a membrane and clothed with small feathers. *Feet* robust. *Toes* three before and one behind, the external toe united at its base to the middle one. *Tarsi* longer than the middle toe. *Wings* having the first *quill-feather* very short, or almost obsolete, the second and third equal and longest.

ROSE-COLOURED PASTOR.

Pastor roseus, Temm.

Le Martin roselin.

THE birds composing the genus *Pastor* are exclusively inhabitants of the older-known portions of the globe, and especially its more eastern and warmer regions. The species are pretty numerous: the only one, however, which is known to visit the more temperate countries of Europe is the present beautiful and elegant example, the true habitat of which appears to be the western parts of Asia and the North of Africa, particularly Egypt and along the course of the Nile. From these districts it migrates regularly into the southern provinces of Italy and Spain; seldom occurring further northward, and visiting our Island only occasionally at uncertain intervals; but from the circumstance of its having been shot some few times in the British Islands, it has a claim, with many others equally scarce and equally peculiar to the warmer portions of the Continent, to a place in our Fauna. Several well authenticated accounts of the capture of this bird have appeared from the pens of Mr. Selby, Pennant, and Bewick; but the only example within our personal knowledge was one shot in the month of May by our esteemed friend Mr. John Newman, of Iver Court near Windsor, in whose possession it now remains, exhibiting that beauty and richness of plumage which we have endeavoured to convey in our illustration.

In its manners it closely resembles our Common Starling (*Sturnus vulgaris*), congregating in the same manner in flocks, and frequenting pasture-lands for the sake of the grasshoppers and other insects which there abound; often attending flocks and herds, and even perching upon the backs of cattle for the purpose of disengaging the larvæ which are bred beneath the skin. We are also informed that it abounds in Egypt, particularly those parts which are subject to the overflow of the Nile, attracted doubtless by the myriads of insects, locusts, &c., which the heat and moisture call into life; and for the services it thus renders to the natives it is held by them in great esteem. In addition to insects, it also feeds upon fruits and berries.

We are informed that the *Pastor roseus* chooses holes in trees, rocks or old buildings for the place of nidification, laying five or six eggs, the colour of which we have not been able to ascertain.

The only difference of the sexes in plumage consists in the more obscure tints of the female, and her rather smaller size; the crest also is less silky and flowing; the young, however, differ much,—and we would here point out another circumstance which indicates the close relationship between the present bird and the Starling. We have mentioned above, the great similarity in their habits, manners and food; we now find an analogous and similar change of plumage in the young: and we would here suggest to those who are more especially interested in the Ornithology of Great Britain, whether the Solitary Thrush of Bewick, which has hitherto been taken for the young of the Starling, may not be that of the Rose-coloured Pastor? We mention this as a query, because there are characters detailed in Bewick which the young of the Starling does not possess in any state, and which more nearly agree with the young of the present bird.

The colour of the Rose-coloured Pastor is very rich and delicate; the beak and legs more or less flesh-coloured; the head, throat and crest, together with the neck, black with violet reflections; back and under parts of a delicate rose-colour; wings and tail black with greenish reflections; irides brown.

The young in the first autumn have the whole of the upper parts of the body of a uniform yellowish brown; the wings and tail rather darker; the throat and under surface whitish; the former being marked longitudinally with brown blotches, and the head offering no indication whatever of a crest.

We have figured a male in full plumage, and a young bird of the year before its autumn moult;—both of the natural size.



NUTCRACKER.
Nucifraga caryocatactes: (Prig's.)

Genus NUCIFRAGA.

GEN. CHAR. *Bill* conical, longer than the head, straight; the upper mandible having the *culmen* rounded, overhanging the lower, both terminating in an obtuse and depressed point. *Nostrils* basal, round, open, concealed by hairs directed forwards. *Toes* three before and one behind, the two outer being united at their base. *Tarsus* longer than the middle toe. *Wings* long and pointed, the first quill-feather being the shortest, and the fourth and fifth the longest.

NUTCRACKER.

Nucifraga caryocatactes, *Briss.*

Le Casse noix.

WE are sorry that it is not in our power to give a detailed account from personal observation of the manners of this singular and interesting bird, which with one other from the Himalaya mountains form the only known species of the present genus, which seems to connect the order with several other groups, of which we may enumerate that of *Picus* among the *Zygodactylous* birds; and Mr. Vigors considers it to assimilate in some degree to that extensive family the *Sturnidæ*, especially to the genera *Cassicus* and *Barita*: it must be acknowledged, however, that some other interesting form seems to be required in order to make the link of approximation complete.

The native habitat of the Nutcracker is the mountain woods of Switzerland and Germany, and indeed the greater portion of Europe, in the northern parts of which it is strictly migratory.

Its claim to a place among the birds of the British Islands rests on a few rare instances of its having been captured in this country. Its habits and manners accord with what we might expect from its peculiar form, bearing a marked resemblance to those of the Woodpeckers: like them, it ascends the trunks of trees, strikes the bark with its bill in order to dislodge the larvæ of insects which lurk beneath, and upon which it feeds, together with worms, fruits, nuts, the seeds of pine, &c.

It incubates in the holes of decayed trees, frequently enlarging the cavity to the necessary size, and lays five or six eggs, of a yellowish white.

The sexes, as in the *Corvidæ* in general, offer no external difference of plumage; the female is, however, somewhat smaller than the male, and perhaps a little more obscure in her markings.

The whole of the plumage is of a deep reddish brown, inclining to umber; the body varied, except on the head and rump, with large spots of white, occupying the centre of every feather; wings and tail brownish black, with green reflections, the latter being tipped with white, the two middle feathers excepted; bills and legs brownish black.

We have figured the bird of the natural size.



JAY.
Garrulus Glandarius, (Briff.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus GARRULUS.

GEN. CHAR. *Bill* shorter than the head, conical, slightly compressed, straight at the base, rather deflected towards the tip, which is faintly emarginated; the lower mandible of nearly equal thickness, and having its culmen equally convex with that of the upper; commissure straight; head crested. *Nostrils* basal, lateral, hidden from view by short setaceous plumes. *Wings* rounded, with the first quill-feather short; the fourth, fifth and sixth of nearly equal length, and the longest in the wing. *Tail* square or slightly rounded. *Legs* weaker than in the genus *Corvus*. *Tarsi* longer than the middle toe; the outer toe joined at its base to the middle one, and longer than the inner; hind toe strong, with a dilated sole. *Claws* stout, moderately curved and sharp; that on the hind toe stronger and longer than any of the rest.

J A Y.

Garrulus glandarius, *Briss.*

Le Geai.

THIS common but extremely ornamental bird is dispersed over the greater portion of the wooded districts of Europe, and together with one from the Himalaya mountains, and another which we have seen, truly distinct from either, form a small but well-defined group, which appears to range intermediate between the latter group and the Pies (*Picæ*), to which the generic title *Garrulus* should be strictly limited, to the exclusion of the Blue Jay of America, and its nearly allied congeners, together with the *Garrulus lanceolatus* of the Himalaya mountains. Thus circumscribed, the true Jays will be found to be exclusively peculiar to the Old World.

The Common Jay of Europe is a noisy, shy, and crafty bird, eluding observation by resorting continually to the more dense parts of woods and thick hedgerows, and is almost entirely arboreal in its habits, seldom going on the ground, and when it does, it is among thickets and bushes, which conceal it from view. Its chief subsistence consists of fruits, berries, and leguminous seeds, while the season lasts, together with the larvæ of insects, worms, grubs, &c., and occasionally the young and eggs of birds. Its propensities render it extremely mischievous in gardens stocked with fruit trees and leguminous vegetables.

The Jay is a permanent resident in our island, as well as in the temperate portions of Europe. It breeds in the most secluded coppices and woods, constructing its nest in the fork of a tree; the nest being formed externally of small twigs, generally of the birch, and lined with fibres, roots, &c. The eggs are four or five in number, of a pale blue, blotched with brown, but the markings are so numerous and minute as to produce a uniform dull grey.

At certain seasons the Jay assembles in small flocks, probably containing the brood of the year, which associate during the winter, until spring leads them to separate into pairs, and commence the great work of incubation.

There exists no visible difference in the plumage of the male and female, and the young at an early age closely assimilates to the adult in colouring. In captivity, this bird becomes a favourite, from its pert and familiar manners, and its aptness in learning words and even sentences.

Bill black, from the base of which a large moustache of the same colour extends over the cheeks; the top of the head is covered with a short full crest, the feathers of which are brownish grey, with a central dash of black, exhibiting as they pass to the occiput faint transverse bars of blue; the whole of the upper surface, as well as the under, is, with the exception of the upper and under tail-coverts (which are white), of a rich vinous or reddish ash colour; wings ornamented with a beautiful blue speculum barred with black; the shoulders chestnut barred with dusky brown; the primaries are silvery white on their outer edges; the secondaries are black, except the first three or four feathers, which are white at their base; tail black, the two middle feathers exhibiting faint indications of blue bars at their base; irides blueish grey; tarsi brown.

The Plate represents the bird of the natural size.



SIBERIAN JAY.
Garrulus infaustus (Temm.)

SIBERIAN JAY.

Garrulus infaustus, *Temm.*

Le Geai imitateur.

THE northern portions of Europe, namely Norway, Sweden, and Siberia, constitute the habitat of this interesting bird, which offers to the naturalist many points for further investigation. With two closely allied species from the north of the American continent, it would seem to form a genus, approximating we admit to that of the true Jays, but still removed from it by certain modifications of character. The general form is less robust, the bill more feeble and shorter, and the feathers more plume-like and disorganized. We are not, however, prepared to institute a new genus, but provisionally assign the present bird a place in that of *Garrulus*. The Siberian Jay, like its American relative (*Garrulus Canadensis*), has a full share of that prying curiosity and imitative qualities which distinguish the race. Its manners are bold and inquisitive, and its actions quick and lively. Confined entirely to the northern latitudes, it is totally unknown in the temperate and southern districts of Europe; and its soft and downy plumage is no doubt well calculated to protect it from the effects of the extreme cold of a Siberian winter; which, as the bird is not migratory, it must in all respects be fitted to endure. In these dreary regions, where the human population is thin and scattered, the Siberian Jay relieves the woods and thickets of part of their loneliness, and attracts the notice of the traveller by its familiarity and restlessness.

Its food consists of wild berries and fruits, to which insects, their larvæ and worms are also added.

Of its nidification little is known; but in this respect we may naturally conclude that it resembles its allied congener the *Garrulus Canadensis*, which is an early breeder, even before the snow is off the ground; constructing a nest of sticks and grass, in a fir-tree in the recesses of the woods, and laying five blue eggs.

The head is covered with a crest of short blackish feathers; those which cover the nostrils, and those also around the base of the beak are yellowish white; the upper surface is olive brown; the shoulders and outer tail-feathers fine rufous; the quills and two middle tail-feathers brown; the throat and under surface of a lighter tint than the back, changing insensibly to a pale rufous, which becomes more decided on the thighs and under tail-coverts; beak and tarsi black. Length eleven inches.

We are not aware that it undergoes any periodical changes in its plumage, which is alike in both sexes.

The Plate represents an adult bird of the natural size.



MAGPIE.
Pica caudata. (Ray).

Genus PICA.

GEN. CHAR. *Beak* strong, compressed laterally, slightly arched, and hooked at the tip. *Nostrils* basal, open, protected by a covering of bristly feathers directed forwards. *Feet* with three toes before, and one behind, entirely divided. *Tarsus* longer than the middle toe. *Wings* rounded. First *quill-feather* very short; the fourth the longest. *Tail* long and graduated, the two middle feathers proceeding beyond the rest.

MAGPIE.

Pica caudata, Ray.

La Pie.

OUR celebrated countryman Ray appears to have clearly appreciated the generic characters of this bird, which he considered sufficiently distinct to warrant his separating it from the genus *Corvus*, to which Linnæus and the naturalists of his school have since referred it. We, however, agree with Ray in considering the difference it exhibits in manners, habits, and general appearance, sufficient to entitle it to be ranked under a separate genus.

The Magpie is one of the most ornamental birds which grace our country; the elegance of its shape, and the glossy black of its plumage, ever varying with reflections of green, contrasted with the purity of the white, render it altogether the most conspicuous bird of our parks and meadows:—bold and spirited, full of life and animation, ever noisy, prying, and inquisitive; the first to give warning of the approach of the fox or hawk, and the first to lead the teasing crowd which collect to harass the marauding intruder. Eminently distinguished by a keen dark eye, an air of cunning, intelligence, and familiar boldness, he has ever been an amusing favourite in captivity; but his propensity for thieving has tarnished his good name. An unwelcome visitor where game is preserved, no bird can be of greater annoyance, or more injurious; one of his favourite objects of search being the eggs of other birds; nor are the unfledged young safe from his attacks. His rapacity however is not confined to the park or the preserve alone, but leads him frequently to venture within the immediate precincts of man, for the purpose of committing depredations on the young broods of domestic poultry. Omnivorous to a great extent, his usual food consists of the larvæ of insects, grubs, snails, and worms; but he does not refuse carrion, grain, or fruits.

This bird is common, not only throughout Europe and the temperate parts of Asia, but also in the United States and the northern regions of America; generally dwelling in pairs throughout the greater part of the year, but congregating in considerable numbers as the breeding season approaches, when they are clamorous and animated, displaying a variety of motions and actions indicating their excitement, and well calculated to show off their plumage and form.

The only difference between the sexes appears to be the rather smaller size of the female.

There is a peculiar circumstance respecting the nidification of the Magpie, which has led to a suspicion among some naturalists that there are in reality two distinct kinds. The fact to which we allude is the different and indeed opposite situation which, without any apparent cause, these birds select for their nests;—in some cases a hedge-row, in others the topmost branches of a lofty tree: but as in their general manner and plumage we can trace no dissimilarity, this circumstance alone, unsupported by others, does not warrant us in making any such distinction.

The degree of art displayed by this bird in the construction of its nest has been noticed by the observers of nature in all ages: it is, indeed, framed and contrived with every attention to security and convenience; not that it is in reality concealed, for its size and situation render it eminently conspicuous.

The nest is externally constructed of sticks and twigs interwoven with great labour, becoming more compact as the building proceeds; within these twigs is disposed an internal coating of mud, and that again is neatly lined with fine grasses. The body of the nest is surmounted by a dome of wickerwork, having an aperture just large enough to admit the parent bird, who generally sits with her head to the hole, ready to quit the nest on the slightest alarm.

The female lays six or seven eggs, mottled all over with ash-brown on a ground of greenish white.

The young soon assume the plumage of the adult, and follow the parent birds till the end of autumn.

Our Plate represents an adult male. The head, throat, neck, upper part of the chest, and back, of a deep black; wing-feathers on the inner webs white, on the outer, shining green; tail-feathers graduated, of a greenish-black, with bronze reflections; scapulars, breast and belly, pure white; beak, irides, legs and feet, black.



AZURE WINGED MAGPIE.

Pica cyanea, (Wagler).

Drawn from Life & on Stone by J & E. Gould.

Printed by G. H. Bullock.

AZURE-WINGED MAGPIE.

Pica cyanea, *Wagler*.

It is with great pleasure that we here present, for the first time, a figure of this beautiful and elegant Magpie ; a bird which has escaped the notice of most of the authors who have expressly treated on the Ornithology of Europe ; and even M. Temminck, who has devoted so much attention to this department of the science, makes no mention of it in a work characterized by accuracy and research. It is only in that useful and little-known book, the "*Systema Avium*" of Dr. Wagler, that any correct notice is to be found respecting it, and even his account is very slight : furnishing us with few details as respects its habits or manners, he merely informs us that it is a native of Spain, arriving in flocks in April, frequenting bushes and willow groves, and is distinguished, like our common species, by its impudence and clamour.

We are personally indebted for the loan of the fine specimen from which our figure was taken, to the liberality and kindness of Captain S. E. Cook, who observed the species to be pretty abundant in the neighbourhood of Madrid, from whence he procured it in a recent state, with several other birds equally rare and valuable.

The beak and legs are black ; crown of the head, occiput and ear-coverts, black with shining violet reflections ; the whole of the back and rump ashy rose-colour ; throat white ; the under surface the same as the back, with the exception of its being a few shades lighter ; wings and tail delicate azure blue, the primaries, with the exception of the two first which are wholly black, white on their outer web for about half their length from the tip ; tail graduated, each feather tipped with white, the two middle ones more obscurely so : total length from twelve to fourteen inches. The sexes do not differ in external appearance.

Our Plate represents an individual in its finest plumage, and of the natural size.



ALPINE CHOUGH.
Pyrrhonorax Pyrrhonorax.

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus PYRRHOCORAX.

GEN. CHAR. *Beak* shorter than the head, conical, and somewhat bent towards the tip, with a slight notch at the point. *Nostrils* basal, lateral, and conical, with fine hairs directed forwards. *Tarsi* and *toes* strong and robust. *Nails* strong and hooked. *Wings* long, the fourth and fifth quill-feathers the longest.

ALPINE CHOUGH.

Pyrrhonorax Pyrrhonorax.

Le Choquard des Alpes.

IN all large families like that of the *Corvidæ*, we seldom fail to meet with various anomalous and isolated forms, which appear to stand out from the general group, amalgamating with none of the principal or more numerous filled sections into which the family is divided, but appearing like links of a chain connecting the family with others widely aberrant from it. Though we cannot in every instance trace a due succession of these links, the continuity of the chain being often interrupted, these forms seem like radiations from a given centre, branching out in lines tending in some instances towards even opposite points. The Nutcracker, for example, which belongs to the family of *Corvidæ*, indicates in its form, habits, and manners, an approximation to the *Picidæ* too strong to be overlooked by the discerning naturalist: the Red-legged Chough is by many regarded as tending towards the *Promeropidæ*, while the present bird claims an affinity with some of the *Merulidæ*. In the instances we have here adduced, we may observe that each example is the type and sole known representative of their respective genera with the exception of the Nutcracker, the genus to which it is assigned containing two species.

The natural situations which the Alpine Chough inhabits are the high rude and precipitous elevations of the Alpine districts of central Europe. During the summer it seldom descends far below the line of perpetual snow, but in severe winters it is sometimes driven from its inaccessible heights to the lower mountain ranges, more perhaps in order to obtain food than to avoid the severity of the cold.

Berries, grains, insects, worms, &c., constitute the food of the Alpine Chough; it is, indeed, almost omnivorous in its appetite.

Its nest is usually made in a cleft or fissure of the rock, and sometimes in the chinks of the walls of old buildings among the Alpine heights. The eggs are from three to five in number, of a dull white blotched with yellowish brown.

When adult, the plumage of this bird is of a uniform black; the beak orange; the tarsi and toes vermillion, the under sides of the latter being black; irides dark brown.

Both sexes are alike. In the young of the year the black is less pure; the beak is blackish, the base of the under mandible being yellow; and the tarsi are black. After the first moult the beak becomes yellowish, and the tarsi pass by shades of brown to red, their colour in the female being more obscure.

We have figured an adult of the natural size.



CHOUGH.
Fregilus graculus: (Cuv.)

Genus FREGILUS.

GEN. CHAR. *Bill* longer than the head, strong, arched and pointed. *Nostrils* basal, oval, hidden by small closely set feathers. *Head* flat. *Wings* long, first quill-feather short, fourth and fifth the longest. *Tail* square, or slightly rounded. *Feet* strong. *Toes* four, three before, one behind, the outer toe united at its base to the middle one. *Claws* strong, very much curved, that of the hind-toe the largest.

CHOUGH.

Fregilus graculus, *Cuvier*.

Le Pyrrhocorax coracias.

THE Chough is readily distinguished from the true Crows by the peculiar form of the beak: its habits and œconomy, as might be expected, are also somewhat different. In this country the Chough is found on the rocky coasts of Cornwall, Devonshire and Glamorganshire, at the Isle of Anglesea, and the Isle of Man. A few pairs may be seen about the high cliffs between Freshwater-gate and the Needle rocks of the Isle of Wight. In the North, they frequent the high and rocky coast about St. Abb's Head, and most of the islands of Scotland, where they breed at high elevations. The Swiss Alps and rocky portions of the most lofty mountains of the European continent, as well as the Himalaya, are among its favourite localities.

In such elevated situations, the strong toes and large curved claws of this bird are of essential service, in securing for it a firm hold against the rugged and perpendicular surface of the highest cliffs, among the inequalities of which it forms a nest of sticks lined with wool and hair, in which it deposits three or four eggs, not very unlike those of the Jackdaw, but longer, of a greenish white ground spotted with darker green and ash-brown. These birds are also said to build about the upper parts of high churches and towers near the coast. Their food consists of insects principally, with grain and berries.

The Chough is lively, restless, noisy and cunning, easily attracted by showy or glittering substances; is tamed without difficulty if taken young, and exhibits under confinement a variety of amusing tricks and actions.

The whole plumage is black, glossed with purple, green, and dark blue; the irides hazel; beak and legs vermilion red; claws black. Young birds of the year have their plumage dull black, with a bill less brilliant.

We have figured an adult male rather less than the natural size: the females are rather smaller.



RAVEN.
(*Corvus corax*, (Linn.))

Genus CORVUS.

GEN. CHAR. *Bill* strong, conical, cultrated, straight at the base, but bending slightly towards the tip; *nostrils* at the base of the bill, oval and open, covered by reflected bristly feathers. *Wings* pointed; the first feather being much shorter than the second and third, and the fourth the longest. *Legs* and *feet* strong, plated, with three toes before and one behind. *Claws* strong and curved. *Toes* divided. *Tarsus* longer than the middle toe.

R A V E N.

Corvus corax, Linn.

Le Corbeau noir.

THE Raven is so extensively diffused, and is in consequence so universally known, that the name at once reminds us of its general character. The largest and strongest of its genus, and bold as well as cunning, it is always an object of suspicion to shepherds and husbandmen, from its daring attacks upon the young or weak among their flocks and herds, and in times of superstition was regarded as a bird of ill omen, its hoarse croaking being supposed to announce some impending calamity.

With a quick, searching eye, and a keen sense of smell, the Raven is ever on the watch to satisfy his appetite, and no sooner does the defenceless state of an animal, and the absence of the herdsman, afford a chance of success, but the Raven is there upon the ground. At first he makes his approach obliquely and with great caution. He is shy of man and of all large animals in motion, because, as it has been aptly observed, though glad to find others' carrion, or to make carrion of them if he can do it with impunity, he takes good care that none shall make carrion of him. If no interruption occurs, he makes his first attack upon the eye, afterwards feeds at his leisure, retires to a small distance to digest his meal, and then returns again.

The Raven is met with in almost every part of the globe. Rocks on the sea shore, mountain ridges and extensive woods are its most usual haunts: and are all equally favourable to its habits, occasionally it visits open plains and large fields, especially when they are used as pasture. Like the other birds of this genus the raven is not particular in selecting food, but eats indiscriminately small mammalia, eggs, reptiles, dead fish, insects, grain and carrion; they have also been seen feeding their young out of the nests of a rookery.

The male and female are frequently observed together, and they are said to pair for life. There is no difference in the plumage of the sexes, and they are subject to only one moult. They build on high trees, or if near the shore, in the crevices of the most inaccessible parts of rocks, and use the same nest, formed of sticks, wool and hair, for years in succession. The eggs, four or five in number, of a blueish green blotched with brown, are produced very early in spring. The female during incubation, which lasts about twenty days, is regularly attended and fed by the male bird, who not only provides her with abundance of food, but relieves her in turn, and takes her place on the nest. The young birds are driven away as soon as they are able to provide for themselves. If taken young, the Raven is easily domesticated, and becomes very tame and familiar, imitating different sounds correctly, and has often been taught to pronounce a variety of words distinctly. They are also noted for carrying away and hiding pieces of polished metal.

The whole of the plumage is black, the upper part glossed with blue; feathers on the throat narrow and pointed; tail rounded at the end; beak, legs and toes black; claws black, strong and curved.

Our figure represents an adult bird, one fourth less than the natural size.



CARRION CROW.
Corvus corone, (Linn.)

CARRION CROW.

Corvus Corone, Linn.

La Corneille noir.

WE are induced to believe that the range of habitat of this well-known species is not so extensive as is generally supposed, but that most of the birds received from distant countries, although very similar, are specifically distinct not only from the Carrion Crow of Europe but also from each other, and that although these differences are not apparent to the casual observer, they will be found on a critical examination to be sufficiently important.

The Carrion Crow is very generally distributed over the British Islands, where it is a permanent resident; it also appears to be equally dispersed over the western portion of the European continent, but is rarely found so far east as Hungary and many parts of Austria. In its habits, manners, and general economy the Carrion Crow is nearly allied to the Raven; like that bird it wanders about in pairs, evincing the greatest wariness of disposition and shyness on the approach of man, which may, however, be partly attributed to the persecution it meets with from almost every one. The Crow is a more powerful and robust bird than the Rook, from which it may readily be distinguished by the greenish metallic hue of its plumage, and by its thickened and more arched bill, which is never deprived of the bristly feathers that cover the face and nostrils. It is also clearly destined by nature to fulfill a very different office; for, while Rooks congregate in immense flocks and disperse themselves over cultivated districts in search of insects, grubs, and grain, the Crow, as before observed, wanders about in solitary pairs, or at most in parties of six or eight, in search of all kinds of carrion, upon which it feeds voraciously; and hence it may be frequently observed on the banks of the larger rivers, which constantly afford it a supply of putrid animal matter; to this kind of food are occasionally added eggs, the young of all kinds of game, and it is even so daring when pressed by hunger as to attack very young lambs, fawns, &c. When once mated, it would appear that Crows never again separate, and if unmolested in their chosen breeding-place, the same pair generally return every year not only to the same locality but to the same tree. The nest is usually placed in a fork near the bole, is of a smaller size than that of the Rook, and is constructed of sticks and mud, lined with wool and hair. The eggs are five or six in number, of a greenish ground, blotched all over with thickly set patches of ash-coloured brown.

It is perhaps one of the most destructive birds the preserver of game has to contend with, and in consequence the poor Crow being sadly persecuted uses the utmost vigilance and cunning to evade the pursuit of his great enemy the gamekeeper.

The sexes offer no difference in the colour of the plumage, and they assume the full colouring from the nest.

The whole of the plumage is black, the upper surface being glossed with blue and greenish reflexions; bill, legs, and feet black, the scales on the two latter being in laminae, or plates.

The figure is of the natural size.



HOODED CROW.
Corvus cornix, (Linn.)

Drawn from Nature & on Stone by J. & F. Gould.

Printed by A. Ballman and Co.

HOODED CROW.

Corvus cornix, *Linn.*

La Corneille mantelée.

THIS fine species of Crow is not indigenous to England, but is now ascertained to be a permanent resident in many districts of Scotland, where, according to Mr. Selby, it breeds in trees, rocks, or sea cliffs, as may accord with their situation, the nest being formed of sticks, and lined with soft materials. That gentleman further informs us that in those districts where it is found, there is no diminution of its numbers during the winter months; and we may reasonably conjecture that those individuals who pay their annual visit to the midland and southern counties of England during the autumn months are accessions from Norway and Sweden: we are strengthened in our opinion upon this point from the circumstance of their appearing at the same time as the Woodcock and many others of our Northern visitors. Although the Hooded Crow is plentifully dispersed over many districts in England, it must be allowed that its choice of places is extremely local: it frequents the shores of the sea, the banks of large rivers, extensive downs, and such arable lands as are devoid of hedgerows and woods. On the Continent it may be observed in all the mountainous districts. It is common in the Alps and Apennines, but nowhere more so than in Norway and Sweden. In its habits and manners it bears a strict resemblance to the Carrion Crow: like that bird it wanders about in pairs, or at the most three or four together. Their omnivorous appetite enables them to subsist upon all kinds of carrion, which they devour with avidity. Those that take up their positions upon the coast or about armlets of the sea find a plentiful supply in the remains of dead fish and crustacea, to which are added worms and various species of mollusca. In the inland districts they eat worms, beetles, and whatever offal may fall in their way.

The Hooded Crow is abundantly dispersed along the banks of the Thames, and all such rivers as are under the influence of the tides.

During the period of incubation they are said to be very destructive to the eggs and young of the Red Grouse, and will even attack lambs and sheep. The eggs are four or five in number, of a greenish ground colour, mottled with dark brown.

The sexes are alike in plumage, and the young attain at an early age the colouring of their parents.

The head, throat, wings, and tail are black, with purple and green reflections; the remainder of the body is smoky grey, the shafts of each feather being darker; legs and bill black; irides dark brown.

The Plate represents an adult male of the natural size.



JACKDAW.
Corvus monedula, (Linn.)

Drawn from Nature &c. Stone by J. & E. Gould.

Printed by C. Hullmandel.

JACKDAW.

Corvus monedula, *Linn.*

Le Choucas.

THE Jackdaw, still more bold and familiar than the Rook, which approaches so near the residence of man during the period of incubation, advances under the very roofs of our dwellings, as if to solicit for itself and its sooty progeny some especial care and protection; it also lives in towers, old castles, and deserted ruins, the loneliness of which it enlivens with its noisy animated actions and gregarious habits.

Its range of habitat, although not equal to that of the Raven, is nevertheless widely extended, the bird being dispersed over every part of Europe, and the contiguous portions of Asia and Africa.

During the seasons of autumn and winter, the Jackdaw associates with the Rook, in whose society it appears to dwell in amity, feeding with it by day and retiring with it at night to the rookery or the accustomed roosting-place. On the approach of spring it separates from the Rook, and again bends its way towards its favourite place of incubation. Independently of the situations alluded to, it nestles in rocks and the holes of trees, and in some instances in rabbit-holes in the ground. The nest is composed of sticks and lined with wool: the eggs are four or six in number, of a pale greenish blue spotted all over with blackish brown.

Omnivorous in its appetite, the Jackdaw feeds on fruits, pulse, and grain, to which are added, grubs, snails, worms, and even carrion. In its disposition it is thievish and mischievous: easily domesticated and familiar, it may be taught to articulate words with distinctness.

The sexes are alike in the colouring of their plumage, and do not undergo any change either in winter or summer.

The young during the first year are more uniform in their colouring than the adult: the silvery grey of the head and neck is not attained until the bird is three or four years old.

The adult has the top of the head black, with violet reflections; back part of the head and neck silvery grey, the feathers of these parts being long and silky; the whole of the upper surface greyish black, the primaries and secondaries having blue and violet reflections; feet and bill black; irides greyish white.

The Plate represents an adult male and female of the natural size.



ROOK.
Corvus frugilegus, (Linn.).

ROOK.

Corvus frugilegus, *Linn.*

Le Freux.

THIS familiar bird appears to be distributed over the greater part of Europe, giving preference to those cultivated portions which afford it a supply of granivorous food, upon which it partially subsists, and for which it is generally condemned by the husbandman as an injurious and destructive neighbour ; though, were the habits of the Rook carefully investigated, we doubt not it would be satisfactorily proved that he amply repays the farmer for the few grains he steals, by the destruction of immense numbers of grubs and insects which he devours in the course of a single year, thus rather claiming our gratitude for his services than deserving our enmity : it must be acknowledged, too, that its presence helps to enliven our fields and pastures.

The Rook is very fastidious in its choice of a place for performing the duties of incubation, frequently leaving the trees of the forest for those situated near our dwellings, and, in some instances, even taking up its abode in the midst of towns and cities.

The adult Rook may at all times be readily distinguished from its near ally the Crow by the naked face and gular pouch, which parts have been divested of their feathers by the constant thrusting of its mandibles into the earth in search of food ; its wings are also more lengthened and pointed, and the hue of the upper portion of its plumage is more inclined to purple.

The Rook is gregarious, and in no country is to be observed in greater numbers than in the British Islands, which afford it an asylum congenial to its peculiar habits and mode of life. It commences the work of nidification in the month of March, constructing a large nest of sticks, lined with a coating of clay and fine grasses. The eggs are five in number, of a blueish green blotched with darker stains of brown. The young for the first ten or twelve months do not lose the feathers which cover the nostrils ; and during this period they so nearly resemble the Crow that a more than usually minute examination is required to discover the difference, though a careful attention to the peculiar form of the bill will obviate any difficulty.

The sexes are so strictly similar in the colouring of their plumage that actual dissection is requisite to distinguish them.

Bill and feet black ; the whole of the plumage black glossed with changeable hues of green and violet purple ; feathers on the back of the neck long and filamentous.

The Plate represents an adult, rather less than the natural size.



GREAT BLACK WOODPECKER.

Picus martius, (Linn).

Genus PICUS.

GEN. CHAR. *Beak* long, straight, pyramidal; and cutting towards the point. *Nostrils* basal, oval, inclosed by membrane; covered with hairs, directed forwards. *Tongue* long, taper, capable of protrusion, armed with a horny tip. *Toes* four; in pairs; antagonizing; the front pair united at their base. *Tail*, twelve feathers; graduated short; shafts stiff and elastic. *Wings*, third and fourth *quill-feather* longest.

GREAT BLACK WOODPECKER.

Picus Martius, Linn.

Le Pic noir.

THE Woodpeckers form a family more numerous perhaps than any other in the whole range of Ornithology; and, if we except Australia and the South Sea Islands, are equally extended over the old and new portions of the globe. Abundant, however, as the species may be, they are so united by a pervading similarity of habits, food, manners, and even colouring, as to constitute a group pre-eminently natural and well defined;—hence the description of one species is to a great extent applicable to all: still, however, as is the case in all natural families, differences sufficiently characteristic exist to warrant a subdivision into groups more or less typical.

Among the true or typical Woodpeckers, may be placed the *Picus Martius*; at once exhibiting the generic characters in their highest degree of development, it exceeds in size all its congeners of the Old World, and indeed is inferior only to the Ivory-billed Woodpecker of the United States of America.

However plentiful it might have been when our Island was less cultivated than at present, and covered with extensive forests, certain it is that this bird is now so seldom to be met with, if at all, as scarcely to come under the designation of a British species. According to M. Temminck it is rare even in France and Germany, and must be sought for in the more northern regions of Europe, as Norway, Sweden, Poland, Russia, and also Siberia, to which in the present day its habitat is almost entirely confined.

At the head of a family of true Climbers, the habits of the Great Black Woodpecker are in conformity with its wants and its means of supplying them. We need hardly say that it is on the bark of trees more exclusively that the Woodpecker finds its food, and to this end are its powers and organs adapted. If we examine the toes of the present species, which are to be taken as illustrative of form in the whole of the family, (with the exception of a single limited group,) we find them long and powerful, furnished with strong claws, admirably adapted for grasping or clinging to the rough inequalities of the bark: besides this, they are placed in pairs, so as in some measure to antagonize; but not, as generally stated, two before and two behind, for one pair is lateral, and diverges from the other at an acute angle, so as to be applied to the convexity of the tree, and thus render the grasp close and firm. The tail is composed of stiff feathers, the shafts of which taper gradually from the base to the extremities, which curving inward when pressed against a tree, not only form a fulcrum for the support of the body, but by their elasticity tend to propel it forwards. This provision, the more needed from the posterior situation of the legs, is admirably calculated for ascending; and having explored the bark by a spiral course, the Woodpecker flies off to the next tree, to repeat the same process.

The flight of the present species is undulating, seldom protracted to any extent, but limited to a transit from tree to tree in the seclusion of its native woods.

Its food consists of the larvæ of wasps, bees, and other insects: in addition, however, it devours fruits, berries, and nuts with avidity.

The female selects the hollows of old trees, in which she deposits two or three eggs of an ivory whiteness.

The two sexes differ but little in plumage,—the crimson crown distinguishing the male, that colour being in the female confined to the occiput; the rest of the plumage is a deep jet-black; the irides yellowish-white; the naked circle round the eye and the feet black; the bill horn-colour, black at the tip.

The young males are characterized by the irides being of a light ash colour; the crown of the head is marked with alternate spots of red and black, which give place gradually to the bright uniform crimson of maturity.

The length of an adult bird is about fifteen inches; and our Plate represents a male and female of their natural size.



GREEN WOODPECKER.

Picus viridis. (Linn.)

Drawn from life & colored by J. B. P. Smith.

Engraved by C. H. Munroe.

GREEN WOODPECKER.

Picus viridis, Linn.

Le Pic vert.

THE present bird represents a group of the great family of *Picidae* or Woodpeckers, which appears to hold an intermediate station between the species of the American genus *Colaptes*, distinguished by their slender arched bills and terrestrial habits, and those which exhibit a closer approximation to the typical form, whose habits, manners, and food, confine them entirely to trees.

The present group appears to contain about eight or ten well-marked species, all peculiar to the old continent, but of which number only two, viz. the *Picus viridis* and *Picus canus*, Linn., are common to Europe, where they appear to fill the same relative situation that the species of the genus *Colaptes* do in America.

This familiar and well-known bird is not only frequent in every part of Great Britain, but is equally spread throughout the whole of Europe, with the exception of the marshy and low lands of Holland, frequenting woods and forests, where its presence may be generally discovered by its clamorous note, or its restless disposition in proceeding from tree to tree in search of insects. This kind of food it takes by inserting its long and retractile tongue into the crevices of the bark in which they lodge, but is not less frequently seen on the ground in search of ants, snails, worms, &c., nor will it refuse fruits, walnuts and berries. It deposits its eggs,—which are of a smooth shining white, and from four to six in number,—in the holes of trees partially occasioned by decay and enlarged by its own exertion. The Green Woodpecker remains with us the whole of the year, and having attained its adult stage of plumage undergoes no subsequent variation. The top of the head, the occiput, and moustache or stripe on the cheek, are of a brilliant red; the face black; the upper surface fine green; the rump tinged with yellow; the under parts pale greyish green; quill-feathers brown, crossed with bars of yellowish white; tail brown, barred transversely with a lighter colour; bills and legs greyish green; irides white.

The female differs from the male externally only in being rather less in size and in the absence of the red moustache, which colour is supplied by black.

The young have only traces of red on the head; the moustache is indicated by black and white feathers; the general colour is paler and more obscure, the back being marked with ash-coloured blotches, and the under parts with brown zigzag bars; irides dark grey.

We have figured an adult male and a young bird in the plumage of the first autumn.



GREY HEADED GREEN WOODPECKER.

Picus canus, (Gmelin).

GREY-HEADED GREEN WOODPECKER.

Picus canus, *Gmel.*

Le Pic cendré.

WE have reason to think with M. Temminck, that the present species has been often confounded with the *Picus viridis*; but it may be distinguished by its rather smaller size, and the grey colour of its head, the red mark on the top of which is more circumscribed, while in the female it is entirely wanting. In general habits, however, the two species are altogether similar, and may be taken as examples of a group including some species from the Himalaya mountains, and other parts of the old world, which present a departure in several characteristics from the more typical Woodpeckers, of which we have given the *Picus martius* as a representative. The subjects of this group appear more terrestrial in their habits, searching for their food on the ground, and less exclusively confined to the trees as climbers. We shall not, however, here enter into the details of these dissentient peculiarities, which occupy a more prominent place in the description of the *P. viridis*, but confine ourselves to the bird before us.

The native localities of the Grey-headed Green Woodpecker would appear to be Norway, Sweden, Russia, and, more or less, the whole of the northern portions of Europe; and, as we are informed by M. Temminck, is also an inhabitant of the northern parts of America. Although it may be deemed presumption to doubt the assertion of so great a naturalist, we cannot help expressing our belief that neither this bird nor any of the species of the group to which it strictly belongs are to be met with on any part of that continent; its place there being occupied by a genus similar in habits and manners, to which the title of *Colaptes* is assigned, and which possesses essential external differences. In France and Switzerland it is very scarce; and we believe is never found in Holland or in the British Islands.

Its food, like that of the Green Woodpecker, consists of insects in general, more especially ants and their larvæ, occasionally feeding on fruits and nuts. Its nidification is also the same; the female depositing four or five eggs of a pure white in the hollow of a tree.

The beak is greenish-yellow, becoming dark at its edges; legs black; irides very light red; forehead crimson; a black mark extends between the eye and the beak; the occiput and space between the crimson forehead and eyes grey; on the cheeks, which are cinereous with a slight tinge of green, a narrow black line extends downwards; the back bright green; upper tail-coverts yellowish; wings olive-green; quill-feathers darker, with distinct yellowish-white spots along their outer edges; tail dark olive-brown, the two middle feathers having traces of obscure transverse bars; the under parts, like the cheeks, cinereous tinged with green.

The general colour of the female is the same as in the male, with the exception of the head, the crown of which is entirely grey; the black mark between the eye and beak less apparent, and that on the cheeks smaller.

The young males at a very early age, even while in the nest, are to be known by the crimson forehead and the black mark on their cheeks; but the young females at this period have no trace of these lines, and they are not acquired till some time afterwards.

Length between eleven and twelve inches.

Our Plate represents a male and female of the natural size, in their adult plumage.



WHITE-RUMPED WOODPECKER.
Picus leuconotus: (Temm.)

WHITE-RUMPED WOODPECKER.

Picus leuconotus, *Bechst.*

Le Pic leuconote.

Of the group of true Woodpeckers distinguished by the alternate black and white of their plumage, the present is by far the largest and most handsome; we may also add, that it is the rarest, never occurring in England, nor in the southern portions of the European continent.

Its true habitat appears to be Siberia and the adjacent parts of Russia, whence it occasionally emigrates as far as the North of Germany; but this is only in severe winters.

This fine species is so little known even to naturalists, that we are not aware of any other specimens in England besides the examples we possess, a circumstance to be attributed to the little intercourse kept up with the remote and desolate region where it abides. It is there, doubtless, by no means uncommon; and we think we may venture to affirm, without fear of contradiction, that there exist in that country many birds and quadrupeds of which there is no record in the pages of science.

The *Picus leuconotus* does not appear to offer any difference from its congeners in its general habits and manners. It is said to be partial to woods of the latest growth, but, according to M. Temminck, is not found in the depths of the pine-forests. Its food consists of various insects and their larvæ. It incubates, as is usual with these birds, in the holes of trees without forming any nest; the eggs are white, and four or five in number.

It may always be distinguished from the Greater Spotted Woodpecker of England by the blotches along the flanks, by the pure white of the rump and the more extended crimson of the abdomen.

The male has the crown of the head crimson; the forehead yellowish white; the cheeks, back of the neck, rump, and chest white; a black moustache stretching from the base of the bill to the occiput; and the sides of the chest and flanks marked with longitudinal black dashes; the upper part of the back, shoulders, and middle tail-feathers black: the wings and outer tail-feathers barred with black and white; the abdomen and tail-coverts crimson; the irides red.

The female has the crown of the head black instead of crimson; in other respects she resembles the male.

We have figured a male and female of the natural size.



GREAT SPOTTED WOODPECKER.
Picus major, (Linn.)

GREAT SPOTTED WOODPECKER.

Picus major, Linn.

Le Pic épeiche.

THIS familiar species of the group of Spotted Woodpeckers enjoys a range of habitat more extensive, perhaps, than any other of its European relatives, there being no wooded districts, especially in the central portions of Europe, where it is not extremely common. In England it abounds in forests, woods, large parks, and gardens. The group to which it belongs, although occasionally descending to the ground in search of food, are far more arboreal in their habits and manners than the Green Woodpeckers represented by the *Picus viridis*, *caniceps*, and several others from the Himalayan mountains. They exhibit great dexterity in traversing the trunks of trees and the larger decayed limbs in quest of larvæ and coleopterous insects which lurk beneath the bark, and to obtain which they labour with great assiduity, disengaging large masses of bark, or so disturbing it by repeated blows as to dislodge the objects of their search. Besides searching trees of the highest growth, they are observed to alight upon rails, old posts, and decayed pollards, where, among the moss and vegetable matter, they find a plentiful harvest of spiders, ants, and other insects ; nor are they free from the charge of plundering the fruit-trees of the garden, and in fact commit great havoc among cherries, plums, and wall-fruits in general.

Their flight is rapid and short, passing from tree to tree, or from one wood to another, by a series of undulations. In their habits they are shy and recluse, and so great is their activity among the branches of trees, that they seldom suffer themselves to be wholly seen, dodging so as to keep the branch or stem between themselves and the observer.

The sexual differences in plumage in most of the Woodpeckers consist in a difference of colour or marking about the head, the males and females resembling each other in every other respect. The male of the present species, it will be observed, is only to be distinguished by a narrow occipital band of scarlet. It is somewhat singular, however, that the young of both sexes, for the first three or four months of their existence, have the whole of the brow scarlet (as may be seen on referring to the Plate), and in this state so closely resemble the *Picus medius* as to have been mistaken for that bird, a circumstance which has led to the supposition that the *P. medius* was indigenous to this country, whereas it is strictly confined to the Continent.

We need hardly say that the *Picus major* resembles its congeners in its mode of nidification and in the colour of its eggs, which are of a glossy whiteness. They are deposited in the hole of a tree, often excavated and enlarged to a considerable depth ; generally producing four or five young, which, with the exception of the crown of the head, as before noticed, resemble their parents in their colours and markings.

The top of the head, a line from the base of the bill descending down the sides of the neck, the back of the neck, mantle, rump, and four middle tail-feathers are black ; wings blackish brown with irregular bars of white ; forehead brownish white ; cheeks, spots on the lower part of the sides of the neck, the scapularies, and under surface white, the latter having a tinge of brown, especially on the abdomen ; the occiput in the male and the under tail-coverts in both sexes scarlet ; the outer tail-feathers white, with one or more imperfect lines of black ; bill dark horn-colour ; tarsi deep lead-colour ; irides purplish red.

The Plate represents a male and female, and their young, of the natural size.



MIDDLE SPOTTED WOODPECKER.
Picus medius; (Linn.)

MIDDLE SPOTTED WOODPECKER.

Picus medius.

Le Pic mar.

THE present bird is more intimately allied to the *Picus leuconotus* than to any other species yet discovered : it is, however, although a third smaller than the Common Woodpecker of England, known under the name of *Picus major*, with the young of which the present species has often been confounded ; this error has arisen from the circumstance of the young individuals of the *P. major* having the whole of the crown of the head scarlet. In fact, the plumage which characterizes both sexes of that species for the first four or five months of their existence would answer minutely to that of the present species when mature, with the exception of the longitudinal dashes on the breast, which are wanting in *P. major*, and which are always present in *P. leuconotus* and *P. medius*. It is somewhat singular that the female of the present bird, unlike most others of its genus, so nearly resembles the male, as in most instances to be scarcely distinguishable except by internal examination.

The *Picus medius* inhabits the borders of woods, parks, and gardens, and, although never found in the British Islands, is very abundant in many parts of the Continent, especially the southern provinces. M. Temminck states that it is very seldom found in Holland, and we have never seen it from the North of Europe ; neither have the collections from Africa or Asia, as far as we have examined, afforded a single example of this bird. Its food consists of insects, which it takes solely from the sides or trunks of trees, the crevices of which it diligently examines in search of them : besides insects, it also feeds during the season on various fruits and berries. It lays its eggs, which are of a glossy white, in the holes of trees.

The colouring of the plumage is as follows : A frontal band of ash colour occupies the space between the bill and the crown of the head, which is scarlet, the occiput being furnished with somewhat elongated feathers of the same colour ; the neck and chest are white, with the exception of an obscure band, which passes down the sides of the neck ; the back and wings are black, the scapularies being white, and the quills marked with bands of the same colour ; the flanks are rich rose colour, with longitudinal blotches of black occupying the centre of each feather ; under surface and vent crimson ; the middle feathers of the tail black ; the outer ones white, banded with black ; irides reddish brown, encircled by a light ring ; tarsi lead colour.

The Plate represents a male and female of the natural size.



LESSER SPOTTED WOODPECKER.

Picus minor; (Linn.)

Drawn from Nature &c. Stone by J.B.E. Gould.

Engraved by C. Holloman.

LESSER SPOTTED WOODPECKER.

Picus minor, *Linn.*

Le Pic épeichette.

THE present elegant species of Woodpecker, which has received from the older ornithologists the specific title of *minor*, is, indeed, the least of all the European Woodpeckers; but if we include India and other portions of the globe, we find species considerably smaller, rendering its appellation erroneous, unless we consider it as strictly in reference to its European congeners. As far as we have been able to ascertain, this portion of the globe forms the restricted habitat of this species, over the whole of which, however, it is pretty generally distributed, confining itself to the precincts of woods, parks, and orchards. In England it is far more abundant than is generally supposed; we have seldom sought for it in vain wherever large trees, particularly the Elm, grow in sufficient numbers to invite its abode: its security from sight is to be attributed more to its habit of frequenting the topmost branches than to its rarity. Near London it is very common, and may be seen by an attentive observer in Kensington Gardens, and in any of the parks in the neighbourhood. Like many other birds whose habits are of an arboreal character, the Lesser Spotted Woodpecker appears to perform a certain daily round, traversing a given extent of district, and returning to the same spot whence it began its route. Besides the Elm, to which it is especially partial, it not unfrequently visits orchard-trees of large growth, running over their moss-grown branches in quest of the larvæ of insects, which abound in such situations. In its actions it is very lively and alert. Unlike the Large Woodpecker, which prefers the trunks of trees, it naturally frequents the smaller and more elevated branches, which it traverses with the utmost ease and celerity: should it perceive itself noticed, it becomes shy, and retires from observation by concealing itself behind the branch on which it rests; if, however, earnestly engaged in the extraction of its food, its attention appears to be so absorbed that it will allow itself to be closely approached without suspending its operations. When spring commences, it becomes clamorous and noisy, its call being an oft-repeated single note, so closely resembling that of the Wryneck as to be scarcely distinguishable from it. At other times of the year it is mute, and its presence is only betrayed by the reiterated strokes which it makes against the bark of trees.

Like the rest of its genus, it deposits its eggs in the holes of trees; the eggs being four or five in number, and pure white.

The sexes offer no other difference than that the female has the crown of the head white, whereas in the male it is of a fine scarlet.

The young attain the plumage of adults immediately after they leave the holes in which they were reared.

The adult male has the crown of the head scarlet; the cheeks, stripe over the eye, sides of the neck, and under parts dull white; an irregular black band passes from the beak down the sides of the neck; back of the neck, upper part of the back, rump, and middle tail-feathers black; wings and centre of the back barred with black and white; outer tail-feathers white, obscurely barred with black; faint longitudinal dashes of the same colour are also observable on the breast.

The Plate represents an adult male and female of the natural size.



THREE TOED WOODPECKER.

Picus tridactylus, (Linn.).

THREE-TOED WOODPECKER.

Picus tridactylus, Linn.

Apternus tridactylus, Swains.

Le Pic tridactyle.

MR. SWAINSON has applied the generic term *Apternus* to this Three-toed Woodpecker; and we refer the reader to the second volume of the North American Zoology, page 301, for a full explanation of the views of the scientific author in his systematic arrangement of this most extensive and characteristic family. The principal distinguishing feature of this genus is the absence of the hind-toe; a deficiency, however, which does not occasion any very material difference in the habits of the bird before us, which bear a close resemblance to those of the typical group.

The present species is by no means uncommon in the northern parts of the European Continent, the vast forests of the mountainous parts of Norway, Sweden, Russia and Siberia, forming its principal habitat; it is also found among the Alps of Switzerland, is but an accidental visitor in France and Germany, and has never been taken, we believe, in the British Islands.

It subsists, like most of the Woodpeckers, on insects and their larvæ, as well as fruits and various wild berries. It chooses holes in trees for its breeding place, which if too small it readily enlarges, the female laying four or five eggs of a pure white.

The male and female present the usual differences of colour which characterize the family.

In the male, the forehead is variegated with black and white; the top of the head is golden yellow; the occiput and cheeks glossy black; from the base of the bill a black stripe extends to the chest, between which and the eye runs a bar of white; a narrow white line also extends to the occiput from behind the eye; throat and chest white; back, sides and under parts barred with black and white, the bars of the under surface being more regular though the black is less deep; wings brownish black, with white spots on the quill-feathers; the four middle tail-feathers black, the rest alternately barred with black and white; the upper part of the tarsi covered with feathers; the superior mandible brown; the inferior dirty white, as far as the point; irides obscure blue. Length nine inches.

In the female, the top of the head is of a glossy or silvery white, interspersed with fine black bars. The rest of the plumage the same as in the male.

In very old males the yellow of the head is more bright, and the white of the under parts predominates, but never loses the black transverse bars.

Our Plate represents a male and female of their natural size; the generic name *Apternus*, Swains., being inadvertently omitted.



WRY NECK.
Yunx torquilla (Linn.)

Genus YUNX.

GEN. CHAR. *Beak* short, straight, conical, produced towards the point: edges of the *mandibles* smooth. *Nostrils* situate at the base, partly closed by membrane. *Toes*, two before, united at their origin; *hind toes* two, disjoined. Second *quill-feather* the longest.

WRYNECK.

Yunx Torquilla, *Linn.*

Le Torcol.

CLOSELY allied in form to the numerous tribe of Woodpeckers, it is not a little singular that the species comprehended in the genus *Yunx* should be limited to two only, of which, until lately, the present bird was alone recognised. Our acquaintance with a new species from South Africa, deposited in the Museum of the Zoological Society, is due to the acumen of N. A. Vigors, Esq., who has introduced it to science under the name of *Yunx pectoralis*, from the distinguishing rufous colour of the breast. The Wryneck derives its name from its peculiar habit of elongating the neck, which at the same time it writhes from side to side with serpent-like undulations, now depressing the feathers so as to resemble the head of a snake, and again half-closing the eyes, swelling out the throat, and erecting its crest, when it presents an appearance at once singular and ludicrous.

Among our most interesting and attractive birds, this little harbinger of spring delights us, not by the splendour of its hues, but by the chasteness of its colouring, and by the delicate and unique dispositions of its markings, which from their intricacy and irregularity almost defy the imitative efforts of the pencil.

Among our migratory birds the Wryneck is one of the earliest visitors; arriving at the beginning of April, generally a few days before the Cuckoo (whose mate, from this circumstance, it has been called), when his shrill monotonous note, *pee pee pee*, rapidly reiterated may be heard in our woods and gardens. The localities of this bird appear to be very limited; the midland counties being those to which it usually resorts in England. M. Temminck informs us that it is seldom found beyond Sweden, and is rare in Holland, occupying in preference the central portions of Europe. We are able to add to this information, by stating that it is abundant in the Himalaya Mountains, whence we have frequently received it as a common specimen of the ornithology of that range, with other birds bearing equally a British character.

In manners, the Wryneck is shy and solitary; and were it not for its loud and well-known call, we should not often be aware of its presence; its unobtrusive habits leading it to close retirement, and its sober colour, which assimilates with the brown bark of the trees, tending also to its concealment.

In confinement, however, or when wounded, this little bird manifests much boldness; hissing like a snake, erecting its crest, and defending itself with great spirit.

It breeds with us soon after its arrival, the female selecting the hole of a tree, in which she deposits her eggs, to the number of eight or nine, of an ivory white. The young soon assume the plumage of the parent birds, which exhibits scarcely any sexual differences.

The food of the Wryneck, like that of the weaker-billed Woodpeckers, consists of caterpillars and other insects, especially ants and their larvæ, to which it is very partial. In the manner of taking its food this bird makes but little use of the bill itself; its long cylindrical tongue, capable of being protruded to a considerable distance, and lubricated with an adhesive mucus, for the secretion of which an extensive salivary gland is provided, being the chief instrument. This it inserts between the crevices of the bark, or among the loose sandy earth of the ant-hill, protruding and withdrawing it so rapidly, with the insect adhering, as almost to deceive the eye.

Leaving England in the early part of the autumn, the Wryneck passes over to the southern districts of Europe, and probably extends its journey to Asia, where it finds a genial climate, and food still abundant.

The prevailing colour of this elegant little bird consists of different shades of brown, inclining to gray on the head, the rump, and the tail, but of a bright chestnut on the larger wing-coverts and the primaries; the whole beautifully variegated with delicately shaped markings of a deep brown, which give it a mottled appearance. Breast wood-brown, penciled with slender transverse tracings; abdomen dirty white, speckled with minute dark triangular spots; bill yellowish-brown; irides chestnut; feet and legs flesh-coloured.

The annexed Plate represents the male and female of their natural size; the latter in the act of leaving the hole in the tree, in which we may suppose her to have formed a nest.



COMMON NUTHATCH.
Sitta Europea, (Linn.)

Genus SITTA.

GEN. CHAR. *Bill* straight, cylindrical, slightly compressed ; subulated, acuminate. *Tongue* short, horny, and armed at the point. *Nostrils* basal and rounded, partly hidden by reflected bristles. *Feet* with three toes before and one behind, the outer toe being joined at its base to the middle one ; hind toe of the same length as, or longer than, the middle toe, with a long and hooked claw. *Tail* of twelve feathers. *Wings* rather short ; the first quill very short, the third and fourth the longest.

COMMON NUTHATCH.

Sitta Europea, Linn.

La Sittelle torchepot.

As far as our recollection serves us, the continent of Europe is the only division of the globe to which this species belongs ; nevertheless, the members of the genus *Sitta*, although limited in number, are widely dispersed, but appear to be more particularly attached to the northern and higher latitudes, or to such portions of the tropical countries as from their elevation enjoy a cold or temperate climate. The present species with *Sitta rupestris* (which in the Plate and descriptive letter-press has by an oversight been named *rufescens*) are the only ones which inhabit Europe, while the mountain ranges of India afford us several others, as do also the northern regions of America ; nor should we omit the islands of the Indian Archipelago and the continent of New Holland, which if they do not produce a Nuthatch precisely similar to our own in form, at all events possess a group so closely allied to the true Nuthatches as to assure us that their general economy is nearly identical.

The habits by which the species of the genus *Sitta* are characterized are not a little singular, and in many respects agree with those of the Woodpecker ; they differ, however, in this remarkable circumstance, that the Nuthatch is not only capable of running up the trunk of a tree with great agility and quickness, but of descending also, head downwards, with equal facility, a manœuvre which the Woodpecker is incapable of performing. As the feathers of the tail are short and very soft, this instrument is of no use as an agent in climbing ; and in this respect the Nuthatch differs, not only from the Woodpeckers, but also from the Creepers, to whom the tail is of main importance. The position with the head downwards appears to be to the Nuthatch that which is most easy and natural. It not only assumes this attitude when alighting on the trunk or limb of a tree, but hammers at the bark or splits a nut in a chink in the same position.

The sexes offer no distinguishable difference in the colouring of their plumage, which is also assumed by the young of the year. Insects, nuts, and various berries constitute their food. Their incubation is performed in the holes of decaying trees.

The present beautiful bird is spread throughout the greater part of Europe, and is common in many of the wooded districts. In our own island it is abundant in some localities, while in others it is seldom to be met with. Woods and plantations are its favourite haunts, especially where aged oak and other forest-trees overshadow the underwood. Active and alert, it is ever in motion, now flitting from tree to tree, now traversing the bark in quest of food, or hammering at some decayed part in order to dislodge the insects which have mined their way beneath. The strokes of its bill are smart and strong, and may be heard for a considerable distance ; it is thus that it shivers the hard covering of the hazel-nut, which it first fixes in some chink or fissure, and works at it with the head downwards ; apparently to increase the mechanical effect of the blow. In the spring the call-note of the Nuthatch is a clear shrill whistle ; at other times the bird is silent. The nest consists of a few dried leaves, which constitute a bed in the hole of a tree for the reception of the eggs, which are from five to seven in number, and of a greyish white spotted with reddish brown. The female is assiduous in her task, and defends her nest with her bill and wings, hissing at the same time in token of anger and distress. In winter the Nuthatch often resorts to orchards and gardens in search of food, but does not migrate. The colouring is as follows :

The whole of the upper surface of a fine blueish grey ; the quills and base of the tail-feathers, except the two middle ones, being black ; the outer one on each side having a black spot near the tip ; a black band passes from the bill through the eye ; and down the sides of the neck, where it ends abruptly near the shoulders ; throat whitish ; the under surface rufous-brown, becoming of a chestnut on the flanks ; bill and tarsi black ; irides hazel.

We have figured a pair of these birds of the natural size.



DALMATIAN NUTHATCH.

Sitta rufescens, (Temm?)

Drawn from Nature & en. Some by J. E. Gould

Printed by C. Bulfinch & Co.

DALMATIAN NUTHATCH.

Sitta rufescens, *Temm.*

It is with much pleasure we are enabled to introduce a second European species of the limited and well-defined genus *Sitta*, which, we believe, is now figured for the first time. In size it exceeds the common species, and indeed all its congeners.

The Dalmatian Nuthatch is an inhabitant not only of the country from which it takes its name, but also the whole of the south-eastern portion of Europe generally; indeed, to this section of the globe it appears to be strictly limited.

It may be observed that among all the collections of birds from India we have had opportunities of examining, the species in question has never occurred, although the range of the Himalaya presents us with two others totally different either from the Dalmatian or the Common European Nuthatch.

In its general style of colouring as well as in its form, habits, and manners, it exhibits a striking resemblance to the *Sitta Europæa*.

Of its nidification and the number and colour of its eggs we have been unable to obtain any information, yet doubtless they differ but little from those of its immediate and well-known ally. The magnitude of this bird, together with its robust and lengthened bill, and the black mark on each side the neck, sufficiently distinguish it from all known species.

The sexes do not differ in their colouring.

The whole of the upper surface is of a beautiful ash grey; a dark line begins at the base of the upper mandible, passes over the eyes, down the neck, and bends across the shoulders; the quill-feathers are blackish brown; the throat and breast white, passing into pure chestnut on the flanks and lower part of the abdomen; bill black at the tip, and horn-colour at the base; tarsi lead-colour.

The Plate represents an adult of the natural size.



ASIATIC NUTHATCH.
Sitta Asiatica; (Temm.)

Drawn from Nature & on Stone by J. & E. Gould.

Printed by C. Hullmandel.

ASIATIC NUTHATCH.

Sitta Asiatica, Temm.

M. TEMMINCK has kindly forwarded to us a fine example of this elegant species of Nuthatch for the purpose of illustration, accompanied by a note stating that it was from Russia, and would form a portion of the supplement to the third part of his "Manuel." We can only regret that we have not been able to acquire any further information respecting it.

It is rather smaller in size than the common species (*Sitta Europæa*), and is much lighter in the general tone of its colouring.

The crown of the head and all the upper surface are light grey; wings greyish brown, the primaries being darker; outer tail-feathers white at the base and dark brown towards the tip; the remainder, except the two middle ones, which are grey, dark brown at their base; a stripe over the eye; the chest and upper part of the abdomen white; lower part of the abdomen and under tail-coverts dull rufous; a black stripe commences at the base of the bill and runs through the eye to the shoulders; bill black; feet brown.

Our figure is of the natural size.



COMMON CREEPER.
Certhia familiaris, (Linn.)

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hollensted.

Genus **CERTHIA**, *Ill.*

GEN. CHAR. *Bill* of mean length, curved, triangular, compressed, slender, and sharp-pointed. *Tongue* short. *Nostrils* basal, pierced horizontally, naked, and partly covered by an arched membrane. *Feet* with three toes before and one behind, which last is strong, and longer than the middle toe; the outer toe united at its base to the middle one. *Tail* wedge-shaped, composed of twelve stiff, sharp-pointed, and deflected feathers. *Wings* having the first quill short, and the second and third shorter than the fourth, which is the longest of all.

COMMON CREEPER.

Certhia familiaris, *Linn.*

Le Grimpereau.

THE genus *Certhia* as now restricted will contain but two species, the bird here figured (which is the only one hitherto discovered in Europe), and one from the Himalaya mountains, characterized some years since by Mr. Vigors under the name of *Certhia Himalayana*. This new species bears a strong resemblance to its European congener, from which it may be distinguished by the markings of brown across the tail-feathers; it is also a trifle larger.

The Common Creeper appears to be very generally dispersed over the whole of the Continent, but according to M. Temminck it becomes more rare as we approach the northern parts of Russia and Siberia; which may be reasonably accounted for, by the diminished number of insects in all high latitudes.

It is a stationary species in the British Islands, where it is very generally dispersed, but is of course more plentiful in the neighbourhood of wooded districts, plantations, &c. It also frequents gardens and orchards, where its presence may generally be detected by its weak shrill cry, which is not unlike that of the Golden-crested Wren (*Regulus auricapillus*).

It is an excellent climber, ascending the boles of trees with great rapidity, in search of insects, upon which it solely subsists. Its stiff and elastic tail, together with its long hind toe and curved claw, presents a structure peculiarly adapted for ascending trees.

Its nest is constructed in the hole of a decayed tree, and is formed of grass and mosses, with a lining of feathers: the eggs, which are from seven to nine in number, are white speckled with reddish brown.

Head and upper surface yellowish brown intermingled with black, brown, and greyish white; rump pale chestnut red; first four quills dusky; the remainder have a broad reddish white band in the middle, and the tips white; tail greyish brown; a whitish streak passes over the eyes; throat, breast, and under surface white, passing into ochreous yellow on the vent; upper mandible dusky, lower yellowish white; legs and toes yellowish brown.

The sexes are alike in plumage.

We have figured an adult bird of the natural size.



HOOPUE.
Upupa epops. (Linn.)

Genus UPUPA, *Linn.*

GEN. CHAR. *Beak* very long, slightly arched, slender, triangular and compressed. *Nostrils* basal, lateral, ovoid, open, surmounted by the feathers of the forehead. *Toes* three before, and one behind; the external and middle ones united as far as the first joint. *Nails* short, a little bent, except in the hind one which is straight. *Tail* square, consisting of ten feathers. *Wings* moderate; fourth and fifth *quill-feathers* the longest.

HOPOE.

Upupa epops, *Linn.*

La Huppe.

THERE are few birds more elegant in their appearance or more singular in their manners than the Hoopoe; and although it is not a resident in the British Isles, nor strictly a periodical visitor, we are, from its frequent occurrence, enabled to give much information respecting its natural habits and modes of life. The genus to which it belongs is extremely limited in the number of its species, three only being at present recognised. Our European example, the *Upupa epops*, may be regarded as a migratory bird, and its natural range is very extensive. It is found over nearly the whole of Africa; India and China may also be enumerated among the countries it inhabits, as specimens received from the latter and the Himalaya mountains sufficiently testify. In continental Europe, it is spread from the southern to the northern extremities, but is more abundant in the former, where it appears to be a bird of regular and periodical passage; being, however, regulated in these migrations by the abundance of the food upon which it subsists, viz., the larvæ of scarabæi, together with other insects which live near moist and humid grounds, not even rejecting tadpoles, small frogs, and worms. In the British Islands, as we have already observed, its occurrence is very irregular, being scarce in some seasons, and much more frequent in others; and when it does visit us, its animated motions and foreign appearance, unfortunately for the bird, bring round it a host of persecutors. There are, however, a few instances on record of its having bred among us. The southern coast of England, as we might most naturally expect, is that on which it makes its first appearance, generally in the month of May; hence they disperse themselves over the Island, and are often met with in the most unexpected localities; but the situations most preferred are thick hedgerows, copses, and isolated trees or bushes, in the neighbourhood of low marshy lands: they seem to have but little care respecting their concealment, generally perching on the most conspicuous branch, erecting and depressing the beautiful fan-like crest as if to attract observation: but though it perches upon trees, it is not, as its peculiar legs and feet indicate, a bird ordained by nature to be an exclusive inhabitant of the woods and groves, its feeble toes being ill adapted for clasping with strength and firmness. Its flight is slow and undulating, similar to that of the Woodpeckers.

To enumerate its frequent capture in England would neither add to science nor to a knowledge of its habits; still we beg to mention an instance, which came within our knowledge, of one shot by L. Sullivan, Esq. on the 28th of September 1832, in his own pleasure-grounds at Broom House, Fulham, Middlesex; and we are led to suppose, from the lateness of the season, that it had incubated in the neighbourhood. It chooses for the site of its nest a variety of situations, as opportunity may serve; holes in trees, crevices in rocks, fissures in walls or masonry, holes in the ground or dungheaps, being among the places it has been observed at different times to occupy: the eggs are five in number, clouded with dark grey on a light grey ground.

The young soon assume the adult plumage, which is precisely similar in either sex.

The ground colour of the head, neck, and shoulders is of a beautiful fawn; a double row of long feathers surmounts the head, beginning at the base of the beak and ending at the occiput, capable of being thrown up perpendicularly, so as to form a fan-like crest; each of these feathers is tipped with black; the wing-coverts and scapulars are banded alternately with black and white; the quills are black with a white oblique band; rump white; tail black banded across the middle with white; the flanks and under tail-coverts light greyish fawn dashed with obscure lines of brown.

We have figured two adult birds of the natural size.



WALL CREEPER.
Tichodroma phoenicoptera, (Temm.)

Genus TICHODROMA, *Ill.*

GEN. CHAR. *Beak* very long, slender, slightly arched, cylindrical, angular at the base, and depressed at the point. *Nostrils* basal, pierced horizontally, naked, partly closed by a membrane. *Toes* three before, the external united at its base to the middle one, and one behind with an elongated nail. *Tail* slightly rounded with feeble shafts. *Wings* large and rounded.

WALL CREEPER.

Tichodroma phœnicoptera, *Temm.*

La Tichodrome échellette.

THE form and plumage of this beautiful bird would induce most persons to suppose it a native of a tropical clime ; it is, however, strictly an inhabitant of Europe, although its local distribution appears to be confined exclusively to the middle and southern portions of the Continent. Unlike most of the smaller birds, it frequents the naked and precipitous parts of the most elevated mountains, such as the Alps of Switzerland, the Apennines, and Pyrenees. Among these towering rocks, where the ruins of castles and fortresses are not unfrequent, this pretty bird is seen flitting from crevice to crevice, enlivening the solitude of the scene by its presence. In the choice of its food it is curious and peculiar, being particularly partial to spiders and their eggs, which with various species of insects and their larvæ constitute its diet : for these it is incessantly on the search, not however creeping up and down the sides of the rock or the face of the wall, as is the case with the true *Certhia*, but hopping or flitting from one crevice or projection to another ; hence we see the tail-feathers feeble and not furnished with stiff springy shafts, since they are not required to aid the bird in the same manner as they do in the Woodpeckers or Creeper. The grasp of its long and slender toes is peculiarly tenacious ; the least roughness, or any hold however slight, is therefore sufficient to afford a resting-place. Connecting the habits and the situation which this bird occupies with the means bestowed upon it, we cannot but see how suitably it is endowed ; the slender bill, its tenacious feet, its broad and rounded wing, giving a flitting character to its mode of flight,—all combining to qualify it for its mountain habitat. The moult is double, occurring in spring and autumn, and the two sexes are alike in plumage except during the breeding season, when the throat of the male is black, and the crown of the head of a somewhat darker grey. Before the autumn moult comes fairly on, the feathers of these parts are exchanged, and the markings disappear ; the two sexes are then undistinguishable.

The head, neck, back, and upper surface generally are of a delicate grey ; the under parts of a darker tint of the same colour ; the whole of the wing-coverts and the outer edge of the greater quills for half their lengths, of a lively crimson ; the remainder of the quill-feathers black, each having two spots of white on the inner web, so as to form a double bar when the wing is expanded ; tail black tipped with white ; beak, irides, and tarsi black.

We have figured a male and female in full plumage, and of the natural size.



COMMON CUCKOO.
Cuculus canorus, (Linn.)

Drawn from Nature & on stone by J. & E. Gould.

Printed by C. Hullmandel.

Genus CUCULUS, *Linn.*

GEN. CHAR. *Bill* rather compressed, slightly curved, of mean length; gape wide; lower mandible following the curve of the upper. *Nostrils* basal, round, margined by a naked and prominent membrane. *Wings* of mean length, acuminate; the first quill-feather short, the third the longest. *Tail* more or less wedge-shaped. *Tarsi* very short, feathered a little below the knee. *Feet* with two toes before, and two behind, the outer hind toe partly reversible; the anterior toe joined at the base, the posterior ones entirely divided.

COMMON CUCKOO.

Cuculus canorus, *Linn.*

Le Coucou gris.

IN stating that the Cuckoo is a migratory bird, we add nothing to what is already well known; it is in fact the most celebrated harbinger of returning vivification, and its familiar call is always hailed with pleasure as the token of returning spring and the fresh awakening of Nature from her winter's sleep.

As is the case with most of our summer visitants, the food of the Cuckoo consists principally of insects, especially of caterpillars, larvæ, &c., a proof that its winter sojourn is in climates where this kind of diet is ever to be obtained; hence Africa, a place of winter residence for so many of our migratory birds, affords to this species, among the rest, a welcome retreat. Its range extends over nearly all parts of Europe, and a great portion of Africa and Asia; specimens received from the Himalaya mountains and other parts of India, being strictly similar to those taken in our own island. The Cuckoo does not construct a nest for the reception of its eggs, but deposits them in those of other birds of a much smaller size and of insectivorous appetites: the species most commonly chosen as the foster parents of its offspring are the Titlark, Hedge Sparrow, &c. In the nest of these birds it deposits a single egg; but whether it lays only one or more, is a point at present not ascertained, but it is most probable that it lays several, and deposits them in as many different nests. Shortly after the young Cuckoo is excluded from the shell, with the offspring of its foster parent, it attains to so much strength as to be able to eject them from the nest, itself remaining the sole occupant; and in fact, from its large size and ravenous appetite, it is as much as these substituted parents can do to supply it with food. Mr. J. E. Gray, of the British Museum, from observations made by himself, asserts that the Cuckoo does not uniformly desert her offspring to the extent that has been supposed, but, on the contrary, that she continues in the precincts where the eggs are deposited, and in all probability takes the young under her protection when they are sufficiently fledged to leave the nest. They retire in August, at least the adults, which in their migration always precede the young. The birds of the year quit this country in September.

The sexes may at all times be distinguished by the male being the largest and most robust, and by having the whole of the neck and chest of a fine grey, while the female has the sides of the chest obscurely rayed with markings of brown.

On dissecting this bird in the early months of spring, we cannot fail to observe a great dilatation of the throat, the membrane covering which internally is of a fine rich orange: the cause of this we have not been able to determine satisfactorily; it may be connected with the organs of voice. The circumstance of the stomach of the Cuckoo containing a lining of numerous hairs, was for a long period a matter of great curiosity to naturalists; but these are now considered to be a deposition of the hairs from the larger caterpillars upon which it feeds, and which it swallows whole.

The young birds differ much from the adults, having at first the upper surface of deep brown margined and spotted with reddish brown, the feathers on the forehead margined with white, and a patch of the same colour at the back of the head, the throat and under surface yellowish white transversely barred with black, the irides brown, and the legs pale yellow. Young females are more reddish brown, and have only a faint indication of the white patch at the back of the head.

The adults have the head, neck, breast, and upper surface bluish grey, which is deepest on the wing-coverts; the under surface, thighs, and under tail-coverts white transversely barred with black; the inner webs of the quill-feathers marked with oval white spots; the tail black with small oblong white spots along the shafts, and the tips white; the bill blackish brown at the tip and yellowish at the base; the gape and eyelids rich orange; the irides gamboge yellow, and the legs and feet lemon yellow.

We have figured an adult, and the young bird in its first autumn, of the natural size.



GREAT SPOTTED CUCKOO.
Cuculus glandarius, (Linn.)

Drawn from Nature & engraved by J. E. Gould.

Printed by C. Baldwin.

GREAT SPOTTED CUCKOO.

Cuculus glandarius, Linn.

Le Coucou Geai ou, Tacheté.

THE crested head, lengthened and powerful tarsi, together with the more elegant form exhibited in the bird before us, indicate very clearly that a further subdivision of the family is requisite: the reason why we have figured it under the generic name of *Cuculus*, and not under that of *Coccyzus*, applied to it by some authors, is that the bird to which the latter title was first applied possesses characters different from either the present bird or the true Cuckoos.

We do not in this place feel disposed to enter largely into a consideration of the divisions of this family, and therefore defer adding a new generic name to the Great Spotted Cuckoo until we have had an opportunity, which we hope will occur at no distant period, of revising the whole group, when not only this, but several other species will be brought under investigation.

So little is known of the habits and manners of this bird that it is still uncertain whether, like the species common to England, its eggs and offspring are confided to the care of other birds, or whether it constructs its own nest and performs the process of incubation in the ordinary way; which paucity of information is occasioned by its being so sparingly dispersed over the continent of Europe that no opportunities have occurred of observing the most interesting portion of its economy,—its nidification.

Its true habitat is the wooded districts skirting the sultry plains of North Africa; but the few that pass the Mediterranean find a congenial climate in Spain and Italy, further north than which they are rarely seen.

That valuable work the “*Planches Coloriées*” of M. Temminck contains an accurate description of this bird in all its various changes of plumage, a portion of which we venture to extract. This Cuckoo, which is larger than the common species, is characterized by a crest comprised of filamentous feathers, by a very long graduated tail, by the linear and tubular form of the nostrils, and by the comparatively strong bill and feet. In the old male the crest, all the head, and the cheeks are ash colour, more or less deep according to age; the stems of the feathers of these parts are brown, and the base of the webs whitish; a band of blackish ash commences at the regions of the ears, passes under the occiput, and extends to the nape of the neck; the back, the rump, the scapularies, and the coverts of the wings are of a greyish brown tint, slightly clouded with a greenish lustre, the tips of all these feathers having a white spot, which varies in size and purity according to age; the young and birds of the middle age have these spots more extended and better defined than the adults and old birds; the primaries are of a dark brown, edged with grey, and terminated with white; the feathers of the tail are ash brown ending in pure white; throat and chest reddish white; the abdomen and under tail-coverts pure white; the feet are dark brown inclining to yellow on the under surface; the bill is brownish black at the point; the base of the under mandible reddish yellow.

The plumage of the middle age differs from that of the adult in having the head and crest of a much darker colour and the whole of the upper surface more inclining to reddish brown with slight reflexions of green; the primaries are rufous, tinged with greenish brown towards the points, which are pure white; the throat and chest are clear reddish brown; the under surface as in the adult male.

The young of the year is still darker in its plumage; the crest is short; the feathers of the back and secondaries are of a reddish brown; the two middle tail-feathers are slightly tipped with white; the front of the neck and the chest are deep rufous; all the other inferior parts are reddish white; feet and beak lead colour; irides grey.

The Plate represents a male of the natural size, nearly adult.



AMERICAN CUCKOO.
Coccyzus Americanus, (Bonap.)

Genus COCCYZUS, Vieill.

GEN. CHAR. *Bill* of moderate length, rather strong, arched, the culmen convex, the base compressed. *Nostrils* basal, elongated. *Wings* short. *Tail* long, cuneiform. *Tarsi* and middle toe long and equal.

AMERICAN CUCKOO.

Coccyzus Americanus, Bonap.

Le Coucou Cendrellard.

Four examples of this American species having been taken in Great Britain, namely two in Ireland, one in Wales, and one in Cornwall, we have no hesitation in admitting it to a place in this work.

The first notice we are acquainted with of the occurrence of this bird appeared in the Field Naturalist's Magazine of Mr. Rennie. Mr. Ball of Dublin Castle, in a letter to the editor of this Magazine, made known the capture of the first specimen, which was shot near Youghal, in the county of Cork, in the autumn of 1825; and the second was shot at a later period at Old Connaught near Bray. The Cornwall specimen was the subject of a private communication, and the fourth was obtained on the estate of Lord Cawdor in Wales, during the autumn of 1832. This last example has now by the liberality of His Lordship been deposited in the British Museum, and one if not both of the Irish specimens were exhibited at the Zoological Society by Mr. Thompson of Belfast in June 1835.

"This bird," says Mr. Audubon, "I have met with in all the low grounds and damp places in Massachusetts, along the line of Upper Canada, pretty high on the Mississippi and Arkansas, and in every State between these boundary lines. Its appearance in the State of New York seldom takes place before the beginning of May, and at Green Bay not until the middle of that month." The most frequent note of this bird sounds so much like the word cow, frequently repeated, that it has obtained the general appellation of Cow-bird; and from being particularly vociferous before rain, it is in some States called the Rain-crow. Unlike our English Cuckoo this American species builds a nest and rears its young with great assiduity, but it sometimes robs smaller birds of their eggs, and its own egg, which cannot be mistaken from its singular colour, is occasionally found in another bird's nest. Mr. Audubon says "that its own nest is simple, flat, composed of a few dry sticks and grass, formed much like that of the Common Dove: the eggs are four or five in number, of rather an elongated oval form, and bright green colour. The young are principally fed with insects during the first weeks, and they rear only one brood in a season, unless the eggs are removed or destroyed."

The appearance of these different examples of an American species in this country has caused some speculation. M. Temminck, unwilling to consider it as a migration from America to Europe, thinks it probable that the bird may yet be found in the north of Europe.

The upper mandible is dark brown, the under one yellow, the irides hazel, prevailing colour of the head, neck, back, wings, wing-coverts and two middle tail-feathers light greenish brown; the other tail-feathers are black, with the ends white, the outer tail-feather on each side is white on the outer web; the tail graduated; all the under surface of the body greyish white; the legs and toes blue.

We have figured this bird of the natural size.

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